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SALES OF CHEESE

IN SELECTED CANADIAN CITIES

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Following requests from the Ontario Cheese Producers' Association a Committee was established early in 1951 to direct research on regional variations in the demand for cheese. This Committee consisted of H.A. Derby of the Dairy Products Division, and A.H. Turner, J.E.O'Meara and M. Rachlis of the Economics Division, Canada Department of Agriculture.


The study was planned in two phases. The first of these was an audit of sales of cheese by wholesalers in seven cities, which was directed at the outset by R.E.F. Jones of the Economics Division and later by the author. The second phase was a consumer preference survey conducted by a commercial research agency in Toronto and Vancouver and by staff of the Economics Division in Ottawa.

Field work of the wholesale audit phase of this study was carried out by staff of the Economics Division located at Vancouver, Saskatoon and Truro as well as various members of the Ottawa staff. J.M. McCharles of the Farm Economics Branch of the Ontario Department of Agriculture assisted with the field work in Ontario, especially in the city of Toronto. Assistance in contacting cheese wholesalers was received from the Dairy Products Division of the Canada Department of Agriculture.

A list of wholesalers of cheese in the seven selected cities is included in the Appendix. Special thanks are due to these firms, all of which supplied detailed information on their sales of cheese. In some instances, this entailed considerable added work for their staffs.

Over 2,500 housewives in the metropolitan areas of Ottawa, Toronto and Vancouver were interviewed on their use of cheese. All these ladies are thanked for their kind co-operation.

A preliminary report on the consumer preference phase of this study was published in March 1952 under the title "Consumer Preferences and Uses of Cheese in Ottawa, Toronto, Vancouver". This report is now out of print. A similar report on the wholesale audit phase entitled "Demand for Cheese in Selected Canadian Cities" was published in October 1952.



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INTRODUCTION

Cheese is among the earliest processed or manufactured foods known to man. It consists of the fat and non-fat solids in milk separated from the water by the process of curdling. This curdling may be achieved through natural souring, the action of rennet, or a combination of the two. Some water is retained in most types of cheese, and a small portion of the dry nutrients of milk are lost in the whey. There are many types of cheese depending on the type of milk used, the method of curdling and ageing, and a variety of other factors.

The most common cheeses in Canada are cheddar, processed, cream and cottage. Cheddar is a hard dry cheese which retains the bulk of the nutrients of 11 times its weight in milk. Processed cheese is a pasteurized and emulsified cheese made from cheddar. Moisture and a variety of other ingredients are added to obtain desired textures and flavours. Cream cheese is made from cream or milk with cream added. It may be flavoured with various foods. Cottage cheese is made from skimmed milk. Both cream and cottage cheese have a much higher water content than cheddar cheese since the whey is not pressed out to the same extent as in the production of the latter.

Until 1947 over half of the cheese produced in Canada was exported, principally to Great Britain. Consequently, export demand determined cheese prices and few cheese producers were greatly concerned about the domestic market and its potentialities.

Since World War II this picture has changed. Repeated financial crises in Great Britain, combined with the possibility of obtaining cheese on satisfactory terms in non-dollar areas, led that country to curtail sharply her purchases of Canadian cheese.

Per capita cheese consumption in Canada is low compared with that of many other countries. Since 1926 it has varied between three and six pounds per person per annum with a slight upward trend. Among 17 countries from which the Commonwealth Economic Committee compiles these data only two, the Irish Republic and Austria, have lower cheese consumption rates than Canada.^{1/} The United Kingdom and most other countries in Northern and Western Europe have per capita cheese consumption rates ranging from two to four times as high as the Canadian level. While this may be explained in part by cheese replacing meat in the diets of the peoples of these countries, the cheese consumption rates for even such heavy meat eating countries as Argentina, New Zealand, Australia and the United States exceed that for Canada. Indeed, the Canadian cheese consumption rate would have only had to increase to that of the United States to have absorbed domestically all of the cheese produced in Canada in 1951.

To provide a better foundation for consideration of development

^{1/} Dairy Produce, Intelligence Branch of the Commonwealth Economic Committee, London, 1952. p.24.

of the domestic market, data were required on the following:

1. Variations in the demand for cheese in different parts of Canada;
2. Habits of various classes of consumers with respect to the use of cheese.

Scope and Method.- To determine whether cheese consumption varied in different parts of Canada an audit was made of the sales of cheese by wholesalers to retailers in seven urban areas, namely, Saint John, Three Rivers, Ottawa, Toronto, Sudbury, Saskatoon and Vancouver. These areas were selected after a careful study of the economic characteristics of all of Canada's larger cities. Generally, the limits of these areas coincided with those of corresponding greater cities, as defined in the 1951 census. At the time the audit was planned, such areas had not been defined for Three Rivers, Sudbury and Saskatoon. In each case, adjoining towns were combined with the city.

The audit was conducted for the months of May, August and November 1951 and February 1952. Excellent co-operation was given by the wholesalers of cheese, all of whom agreed to co-operate. In many instances, the desired data were summarized by the firm involved, and in others tabulated by enumerators from such reports as sales invoices. Every effort was made to eliminate double counting of sales such as might arise when cheese was sold by one wholesaler to another.

For purposes of this wholesale audit, cheese was classified as follows:

1. mild, coloured cheddar
2. medium, coloured cheddar
3. old, coloured cheddar
4. mild, uncoloured cheddar
5. medium, uncoloured cheddar
6. old uncoloured cheddar
7. processed and cream
8. other domestic
9. imported

Cream cheese was classed with processed since the number of firms distributing it at the wholesale level are so few that published data on sales would reveal the sales volume of individual firms to their competitors. The "other domestic" group of cheese includes such types as Oka, Bra or Brie, Camembert, and domestically produced Gouda. The imported group included all the fancy imported cheeses. Imported cheddar was included with domestic cheddar, and imported processed cheeses such as Gruyere were included with imported cheese.

Data on consumers' preferences were obtained by interviewing housewives in three of the seven cities, namely, Ottawa, Toronto and Vancouver. In Toronto and Vancouver surveys were conducted by a commercial research firm in September 1951. In Ottawa the Economics Division made a survey in November 1951 and a repeat survey in October

and November 1952. The numbers of interviews in these surveys were as follows: Toronto 898; Vancouver 739; Ottawa 1951, 508; and Ottawa 1952, 406. In this phase of the study, information was gathered on cottage cheese as well as other types, except in the 1952 Ottawa survey.

VARIATION IN CONSUMPTION OF CHEESE BY CITY

Sales of cheese in the seven cities of this survey varied from 4.2 pounds per person per year in Three Rivers to 8.7 pounds in Sudbury (Table 1). The comparable per capita consumption rate for Canada as a whole was 5.7 pounds.^{1/}

Table 1.- Per Capita Consumption of Cheese by Month of Survey in Selected Cities of Canada, 1951-52

City	: May : 1951	: August : 1951	: November : 1951	: February : 1952	: Estimated Consumption per annum
- pounds per person -					
Saint John	.40	.42	.48	.48	5.35
Three Rivers	.34	.36	.35	.34	4.17
Ottawa	.45	.45	.53	.52	5.85
Toronto	.60	.59	.78	.69	8.01
Sudbury ^{a/}	.63	.69	.83	.73	8.67
Saskatoon ^{b/}	.50	.49	.59	.58	6.47
Vancouver	.60	.62	.69	.67	7.72

^{a/} Population taken as that of Sudbury, Copper Cliff and McKim township.

^{b/} Population taken as that of Saskatoon and Sutherland, together with one-half of the rural and village population within a radius of about 24 miles of Saskatoon.

The per capita consumption rates of cheese were higher than the Canadian average in all the cities studied, except Saint John and Three Rivers. If it is assumed that all cities with populations in excess of 50,000 have similar cheese consumption rates to those studied, an approximation of the cheese consumption for smaller cities and rural areas may be developed. The total estimated cheese consumption of the seven cities in 1951 amounted to 7.4 pounds per person. If the 5,920,000 people in Canadian cities with a population of over 50,000 all consumed cheese at this rate, they ate 44 million pounds leaving 36 million pounds or 4.4 pounds per person apparently consumed by Canadians living in rural areas and in urban centres with a population under 50,000. However, there is strong evidence that French speaking

^{1/} Dairy Statistics, 1952. Agriculture Division, Dominion Bureau of Statistics, Ottawa, p. 12. A lower figure has been published elsewhere which does not include ingredients of processed cheese other than cheddar and consequently is not comparable to sales reported by wholesalers.

Canadians eat less cheese than English speaking. Consequently, the foregoing computations may overestimate the difference in cheese consumption between small and large centres, since the seven cities include only Three Rivers and French speaking minorities in other cities to represent the influence of the French Canadian population on urban cheese consumption.

Other data suggest that the rate of cheese consumption may be higher in large cities than in smaller centres and rural areas. A study made in 1935 in which both rural and urban consumers were interviewed revealed that the urban families in the study consumed 21 per cent more cheese per person than farm families.^{1/} Market area studies have revealed cheese consumption rates of 5.5 pounds in the West Kootenays in 1950 and 3.3 pounds in the East Kootenays in 1951.^{2/} These figures contrast with 7.7 pounds for Vancouver as reported in Table 1.

Saint John. - There are four cities or urban areas with populations over 50,000 in the four Maritime Provinces. All are port cities and all have populations that are predominately of British origin. In Saint John, New Brunswick, over 80 per cent of the population is of British and 11 per cent of French origin. About half of the wage earners of the city are engaged in white collar occupations. The wage level is generally lower than in comparable Canadian cities in other parts of the country but not out of line with other Maritime cities.

The rate of cheese consumption in Greater Saint John is fairly close to the Canadian average. Approximately 50 per cent of the 5.35 pounds consumed per capita is cheddar (Table 2). For all Canada the comparable figure is 37 per cent. No other types of cheese-processed, other domestic, or imported - have supplemented cheddar in Saint John to as great an extent as in the other cities studied.

The mild and medium maturities of coloured cheddar are sold in greatest volume in Saint John. "Mild" and "medium" have not been defined with precision in the cheese trade and, accordingly, many wholesalers were not certain which of these two categories their cheese fitted. It is noteworthy, however, that the largest porportion of medium cheddar sales occurred in May and February when the bulk of the cheese available was from the previous summer's production and therefore had undergone some period of ageing in storage. Thus, the seasonal pattern shown probably reflected variation in the extent of ageing of the available cheese rather than in consumer preference.

- ^{1/} Boucher, G.P. and Hopper, W.C., An Economic Study of Cheese Consumption in Certain Urban and Rural Districts of Canada. Economics Division, Marketing Service, Canada Department of Agriculture, 1939. p. 7. Reported consumption rates 6.9 pounds per person per year for city families, 5.9 for village families, and 5.7 for farm families.
- ^{2/} Shipley, W.C. and Furniss, I.F., The Market for Farm Products in the West Kootenay Area of British Columbia, 1953, and Shipley, W.C. and Nairn, J., The Market for Farm Products in the East Kootenay Area of British Columbia, not yet published. Economics Division, Marketing Service, Canada Department of Agriculture.

Table 2.- Sales of Cheese by Type - Saint John, 1951-52

Type of Cheese	May 1951	August 1951	November 1951	February 1952	April 1, 1951- March 31, 1952	Per Capita	Proportion of Total
							- per cent -
Cheddar b/							
Mild, coloured	5,632	11,836	20,560	9,647	143,025	1.83	34.2
Medium, coloured	9,435	3,814	40	8,618	65,721	.84	15.7
Old, coloured	-	-	-	500	1,500	.02	0.4
Mild, uncoloured	-	-	-	-	-	-	-
Medium, uncoloured	-	-	-	-	-	-	-
Old, uncoloured	-	794	129	-	2,769	.03	0.5
Total Cheddar	15,067	16,444	20,729	18,765	213,015	2.72	50.8
Processed c/	16,319	15,883	16,115	18,171	199,464	2.55	47.7
Other Domestic	90	205	195	166	1,968	.02	0.4
Other Imported	192	591	428	295	4,518	.06	1.1
Total	31,668	33,123	37,467	37,397	418,965	5.35	100.0

a/ Total of the four months times three.

b/ Includes imported cheddar.

c/ Includes cream cheese.

The very small quantities of old cheddar sold in this city suggest that it may not be available in many stores much of the time. If this is the situation, those who like old cheddar may experience considerable difficulty in obtaining it. It is probable that difficulties in obtaining any specific maturity of cheddar reduce the total consumption of cheese.

More noteworthy is the increase of cheddar cheese sales between August and November while sales of other types changed little. Were people eating more cheddar at this time of year because they were getting the maturity they liked best? The supply of 90-day locally produced cheese would be at its peak in the fall months.^{1/} Seasonal factors may have caused the increase in total cheese consumption which was maintained into February. But in November the gain in consumption was all due to the increased sale of mild cheddar while by February it was evenly divided between cheddar and processed. A specific brand of processed cheese has the same flavour and other characteristics irrespective of the time of year when purchased. The shift from medium cheddar to mild suggests that less mild cheddar may have been available in May and August and some consumers switched to processed cheese. The ratio of cheddar to processed cheese was lowest in May when relative quantities of mild cheddar to medium were lowest. It is quite possible that making all three types of cheddar readily available in this city in all seasons of the year would increase cheese sales.

Three Rivers.- The population of most of the smaller cities in Quebec is almost entirely of French origin. Among the four large cities, two, Three Rivers and Quebec City, have populations that are over 90 per cent French in origin. Accordingly, it was deemed desirable to include one of these two cities in the survey and Three Rivers was selected. The neighbouring town of Cap-de-la-Madeleine was included in the city market area for analysis purposes.

Three Rivers stands out as having a decidedly lower cheese consumption rate than any other city studied. As there are several cheese factories within 40 or 50 miles from the city some cheese may move directly from factories to consumers, but as in other cities such sales would probably be offset by purchases by out-of-town people.

The most striking feature of the Three Rivers data is the very low rate of cheddar consumption. Only 28 per cent of the cheese consumed was cheddar. Thus, cheddar consumption averaged about 1.2 pounds per capita (Table 3). The bulk of the cheddar reported was mild and uncoloured.

It is quite probable that a large section of the population of this city seeks a milder cheddar than that which is made from unpasteurized milk and aged 90 days as was required at the time of the study. ^{2/}

^{1/} During 1951 the required minimum ageing period for cheddar cheese was 90 days. Subsequent amendments to the Food and Drug Regulations may have modified the pattern found in this study.

^{2/} During 1952 the regulations under the Food and Drugs Act pertaining to cheese were amended to reduce the required storage period for ageing cheddar cheese to 60 days. At the same time the requirement of ageing was eliminated for cheese made from pasteurized milk. These amendments make it possible for the trade to offer the very mild cheddar which appears to be sought by many Canadians, especially in Quebec.

Table 3.- Sales of Cheese by Type - Three Rivers, 1951-52

Type of Cheese	May	August	November	February	April 1, 1951 -		Proportion of Total	- per cent -
	1951	1951	1951	1952	March 31, 1952	Per		
	- pounds -					Capita		
Cheddar b/								
Mild, coloured	369	533	406	769	6,231	.10	2.4	
Medium, coloured	-	-	-	-	-	-	-	
Old, coloured	-	96	-	-	288	-	-	
Mild, uncoloured	4,670	5,309	6,108	3,626	59,139	.91	21.8	
Medium, uncoloured	113	149	-	-	786	.01	.3	
Old, uncoloured	640	813	921	1,025	10,197	.16	3.8	
Total Cheddar	5,792	6,900	7,435	5,420	76,641	1.18	28.3	
Processed c/	13,979	13,682	12,797	13,848	162,918	2.52	60.4	
Other Domestic	834	705	858	894	9,873	.15	3.6	
Other Imported	1,405	2,016	1,557	1,829	20,421	.32	7.7	
Total	22,010	23,303	22,647	21,991	269,853	4.17	100.0	

a/ Total of the four months times three.

b/ Includes imported cheddar.

c/ Includes cream cheese.

In spite of the preference for mild cheddar, there would appear to be a better market for old cheddar in Three Rivers than in Saint John. Sales per capita were about three times as great.

Despite the relatively high proportion of processed cheese sold in in Three Rivers, per capita sales for this type were almost identical to those in Saint John.

Other domestic and imported cheeses account for a larger proportion of the sales in Three Rivers than most of the other cities. Oka and Gruyere are sold in considerable quantities there. Nevertheless, the per capita sales of these cheeses are not exceptional as compared with other survey cities.

The seasonal pattern of cheese consumption in the other survey cities was not present in Three Rivers. Indeed, there was very little variation in total cheese sales among the four survey months. Cheddar sales, on the other hand, varied quite sharply being 37 per cent higher in November than in February. As in Saint John, greater availability of mild cheddar may be a factor here. It is also noteworthy that processed cheese sales were lowest when cheddar sales were highest and vice versa, suggesting a substitution of one for the other at different times of the year.

Ottawa.- Greater Ottawa, which includes Hull, ranks fifth in population among Canadian cities. It has a more even division between inhabitants of French and British origin than any other large Canadian city, 43 per cent of the people being French in origin and 48 per cent British. As it is the capital city of Canada, many of the people are employed in governmental work and a larger proportion of the population than in most large cities is engaged in white collar occupations.

Most of the cheddar cheese sold in Greater Ottawa is of the mild coloured type (Table 4). Nevertheless, this city offers a better market for old cheddar than either Saint John or Three Rivers. Per capita sales of processed cheese in Ottawa are similar to those in Three Rivers and Saint John.

A somewhat different seasonal pattern appears in cheddar cheese sales than in processed cheese sales. The supply of good mild cheddar would be near its peak in the fall when purchases by retailers appear to be at their highest level. It is possible that the supply situation influenced the seasonal sales pattern in this city.

Table 4.- Sales of Cheese by Type - Ottawa, 1951-52

Type of Cheese	- pounds -				- per cent -		
	May 1951	August 1951	November 1951	February 1952	Total 1951-52	Per Capita	Proportion of Total
Cheddar b/							
Mild, coloured	37,815	32,899	42,854	40,165	461,199	1.64	28.0
Medium, coloured	6,504	10,599	7,475	6,172	92,250	.33	5.6
Old, coloured	371	1,093	809	2,454	14,181	.05	.9
Mild, uncoloured	-	392	1,231	362	5,955	.02	.3
Medium, uncoloured	327	-	-	1,082	4,227	.01	.2
Old, uncoloured	12,637	10,683	11,814	7,963	129,291	.46	7.9
Total Cheddar	57,654	55,666	64,183	58,198	707,103	2.51	42.9
Processed c/	61,448	60,792	75,349	75,530	819,357	2.90	49.6
Other Domestic	3,901	3,258	3,854	3,904	44,751	.16	2.7
Other Imported	4,861	6,223	6,988	7,970	78,126	.28	4.8
Total	127,864	125,939	150,374	145,602	1,649,337	5.85	100.0

a/ Total of the four months times three.

b/ Includes imported cheddar.

c/ Includes cream cheese.

Toronto.- The metropolitan area of Toronto is second only to Montreal in population. It is the capital of Ontario, seat of the University of Toronto, and to a considerable extent the financial and business capital of Canada. It is a Great Lake port and industrial city with the emphasis on light manufacturing rather than on heavy industry.

Toronto was the only city included in the survey in which old cheddar was sold in larger quantities than mild (Table 5). The cheese consumption rate was also higher than in any other city except Sudbury.

The sharp increase in sales of processed cheese between August and November was closely checked. It was not confined to one or two firms but experienced by all major wholesalers of processed cheese. The cheese festival campaign of October may have been a factor. Other reasons for increased sales suggested by wholesale dealers were that:

1. August is probably the poorest month of the year for retail grocery trade in Toronto since so many people are away on holidays.
2. The high November sales probably include some retail inventory accumulation in preparation for the heavy Christmas trade.

It would appear likely, however, that these factors would be present in other cities where this sharp increase did not occur.

The increase in monthly sales of old coloured cheddar from season to season is quite noticeable. Some wholesalers indicated that this type of cheese was in short supply in May and August. It would appear that many of those who like old coloured cheddar curtailed their cheese purchases when it was not readily available, as there is no tendency for sales of any other type to decrease as sales of this type increased.

Sudbury.- Sudbury is among the smaller urban market areas included in the survey. Its principal industry is nickel mining and smelting. It is also a trading centre for lumbering camps in the surrounding area.

The population of Sudbury county - three-quarters of which lives in the greater city area - is 35 per cent of British and 41 per cent of French origin. The remaining 24 per cent of the population has a wide variety of racial origins, the largest ethnic groups being Finnish, Ukrainian, Italian, German and Polish.

At the time of the survey the limits of Greater Sudbury had not been defined for census purposes. Accordingly, wholesalers were instructed to report their sales in Sudbury and Copper Cliff. As both these centres are within McKim township and the balance of this township is dominantly urban, the entire population of McKim township was included for estimating the per capita consumption rate.

Table 5.- Sales of Cheese by Type - Toronto, 1951-52

Type of Cheese	May 1951	August 1951	November 1951	February 1952	March 31, 1952	April 1, 1951 - March 31, 1952	Per : Capita of Total
							- per cent -
Cheddar ^{b/}							
Mild, coloured	61,410	68,591	69,438	72,126	814,695	.73	9.1
Medium, coloured	68,018	58,651	76,286	68,878	815,499	.73	9.1
Old, coloured	21,881	24,529	51,353	58,407	468,510	.42	5.2
Mild, uncoloured	12	-	-	-	36	-	-
Medium, uncoloured	6,741	468	852	270	24,993	.02	.3
Old, uncoloured	94,127	119,139	99,485	100,007	1,238,274	1.11	13.9
Total Cheddar	252,189	271,378	297,414	299,688	3,362,007	3.01	37.6
Processed ^{c/}	373,419	331,309	510,703	404,974	4,861,215	4.35	54.3
Other Domestic	11,493	10,278	16,036	20,685	175,476	.16	2.0
Other Imported	37,908	43,896	52,317	48,681	548,406	.49	6.1
Total	675,009	656,861	876,470	774,028	8,947,104	8.01	100.0

^{a/} Total of the four months times three.

^{b/} Includes imported cheddar.

^{c/} Includes cream cheese.

Sudbury had the highest per capita cheese sales of any of the selected cities. Sixty per cent of this cheese was processed (Table 6). The seasonal variations in sales arose mainly with respect to this type. As in Toronto, part of the November increase may have been retail inventory expansion.

Sales of cheese types classed for the study as "other domestic" and "imported" were relatively large in Sudbury. It was the only one of the seven cities where a substantial quantity of Bra or Brie cheese was sold. Gruyere and Brick cheese were also sold in substantial quantities in this city.

Saskatoon. - Saskatoon has developed as a distribution centre for northern and central Saskatchewan and as a university town. Its industry is mainly limited to the processing of agricultural products coming from its trading area. A considerable number of farmers from as far as 30 miles away buy a large portion of their groceries there. To allow for the effect of this trade, it was assumed that half the groceries bought by rural people within a 24-mile radius of Saskatoon were purchased in the city. On the basis of this assumption, 6,506 people - half the rural population of this area - was added to the population of the city before computing per capita data.

Not quite 60 per cent of the population of this city is British in racial origin. The next largest groups are, in order: German, Ukrainian, Scandinavian, Netherlands, and then French.

As in Sudbury, 60 per cent of the cheese sold was processed and seasonal variations were mainly owing to the changing volume of sales of this type of cheese (Table 7). However, cheddar sales were more variable than in Sudbury, being especially low in August. The large sales of mild cheddar by wholesalers in May were influenced by the cut price sale of one large consignment on account of surface discolouration. Much of this cheese may have been carried over in retail inventories into June. The seasonal increase in sales of old, coloured cheddar probably reflected mainly an improved supply situation as in Toronto.

Vancouver. - Greater Vancouver, which includes New Westminster, ranks third in population among Canadian metropolitan areas. It is a rapidly growing port city, with a population that is 71 per cent of British origin. The balance of the population is quite heterogeneous. It may be noted that among large Canadian cities only Victoria has a larger percentage of inhabitants of Asiatic origin than Vancouver.

As well as being Canada's principal west coast port, Vancouver includes the University of British Columbia and a wide variety of industrial plants. The mild coastal climate has made the city an attractive place for old people to retire. As a result, 12 per cent of the people are 65 years of age or older. Victoria is the only

Table 6.- Sales of Cheese by Type - Sudbury a/ 1951-52

Type of Cheese	May 1951	August 1951	November 1951	February 1952	pounds -		Proportion of Total
					Total	Per Capita	
							- per cent -
Cheddar c/ Mild, coloured	8,370	7,521	8,785	8,797	100,419	1.72	19.8
Medium, coloured	3,660	2,159	2,378	2,410	31,821	.55	6.3
Old, coloured	-	162	842	371	4,125	.07	.8
Mild, uncoloured	-	-	-	-	-	-	-
Medium, uncoloured	-	-	-	-	-	-	-
Old, uncoloured	1,786	2,396	1,583	1,420	21,555	.37	4.3
Total cheddar	13,816	12,238	13,588	12,998	157,920	2.71	31.2
Processed d/ Other Domestic	20,926	24,906	30,999	24,929	305,280	5.25	60.6
Other Imported	818	1,105	2,131	2,938	20,976	.36	4.2
	1,373	2,082	1,814	1,447	20,148	.35	4.0
Total	36,933	40,331	48,532	42,312	504,324	8.67	100.0

a/ Population taken as that of Sudbury, Copper Cliff and McKim township.

b/ Total of the four months times three.

c/ Includes imported cheddar.

d/ Includes cream cheese.

Table 7.- Sales of Cheese by Type - Saskatoon a/, 1951-52

Type of Cheese	May 1951	August 1951	November 1951	February 1952	April 1, 1951 March 31, 1952	Per Capita	Proportion of Total
	- pounds -				- per cent -		
Cheddar c/							
Mild, coloured	11,453	7,784	10,453	9,768	118,374	1.93	29.8
Medium, coloured	148	1,010	158	71	4,161	.07	1.1
Old, coloured	590	807	1,073	2,430	14,700	.24	3.7
Mild, uncoloured	-	-	-	-	-	-	-
Medium, uncoloured	-	-	-	-	-	-	-
Old, uncoloured	56	17	78	45	588	.01	.2
Total Cheddar	12,247	9,618	11,762	12,314	137,823	2.25	34.8
Processed d/	17,306	18,742	22,672	21,532	240,756	3.93	60.7
Other Domestic	412	156	175	216	2,877	.05	.8
Other Imported	833	1,319	1,446	1,254	14,556	.24	3.7
Total	30,798	29,835	36,055	35,316	396,012	6.47	100.0

a/ Population taken as that of Saskatoon and Sutherland, together with one half of the rural and village population within a radius of about 24 miles of Saskatoon.

b/ Total of the four months times three.

c/ Includes imported cheddar.

d/ Includes cream cheese.

other metropolitan area in Canada of which over ten per cent of the population is 65 or older. Associated with this is a smaller average number of persons per family than in any of the other selected cities.

Sales of cheddar were almost as large as those of processed cheese in Vancouver (Table 8). There was, however, a difference in the seasonal pattern for these types. Cheddar sales increased from May through August to November but declined sharply in February. On the other hand, processed sales were lowest in August and highest in February. The most striking feature of the data, however, was the high sales of old uncoloured cheddar in November as compared to other months. Accumulation of retail inventories for Christmas gift trade may have been an important factor in this connection.

Sales of imported cheese are relatively high in Vancouver. The large displays of less well-known types of cheese carried by some of the larger Vancouver stores may well have stimulated sales of these types in the city. Tourist trade may also be a factor. Some stores and commercial eating places seek to attract tourists with foods that are hard to obtain.

Inter-City Comparisons. - In making comparisons among the cities studied some reservation is necessary with respect to the data on mild cheddar. In those areas where there is a strong demand for very mild cheddar and there are local cheese factories, both small-scale retailers and individual consumers may buy directly from factories. While such sales are probably small in relation to all cheese sold, they may be sufficient to increase the proportion of mild cheddar somewhat in Ottawa and Three Rivers.

The reported sales show a large volume of mild uncoloured cheddar in only one city - Three Rivers (Table 9). However, sales of mild coloured cheddar exceeded a pound per person in all cities except Three Rivers and Toronto. According to the wholesalers' descriptions, less medium cheddar than mild was sold in all the cities except Toronto. It may be noted, however, that wholesalers sometimes were uncertain as to the correct maturity description of the cheese they handled. Toronto, followed by Ottawa, used the most old cheddar per person.

On a per capita basis the processed cheese manufacturer finds Sudbury and Toronto his best outlets among the selected cities. However, more processed cheese is sold per person in Saskatoon and Vancouver than in Ottawa, Three Rivers and Saint John.

Cheeses of the "other domestic" class are sold in significant quantities only in the Ontario and Quebec cities included in the survey. Firms producing these types are found mainly in these two provinces.

Table 8. - Sales of Cheese by Type - Vancouver, 1951-52

Type of Cheese	1951					1952		1951 - 1952		Proportion of Total
	May 1951	August 1951	November 1951	February 1952	Total	March 31, 1952				
						a/	Per Capita			
- pounds										
- per cent -										
Cheddar b/ Mild, coloured Medium, coloured Old, coloured Mild, uncoloured Medium, uncoloured Old, uncoloured	57,628	77,295	81,336	73,077	868,008	1.63	21.1			
	48,801	50,216	52,361	52,301	611,037	1.15	14.9			
	5,913	14,216	13,087	10,785	132,003	.25	3.2			
	-	4,638	3,807	-	25,335	.05	.7			
	963	-	-	39	3,006	.01	.1			
	7,783	3,985	14,044	7,135	98,841	.19	2.5			
Total Cheddar	121,088	150,350	164,635	143,337	1,738,230	3.28	42.5			
Processed c/	157,743	136,935	150,989	171,092	1,850,277	3.48	45.1			
Other Domestic	1,365	1,444	1,881	2,917	22,821	.04	.5			
Other Imported	37,243	38,599	49,400	37,116	487,074	.92	11.9			
Total	317,439	327,328	366,905	354,462	4,098,402	7.72	100.0			
a/ Total of the four months times three.										
b/ Total includes imported cheddar.										
c/ Total includes cream cheese.										

Table 9.- Comparison of Quantity Sold Per Capita of Various Types of Cheese in Selected Cities of Canada, 1951-52

Type of Cheese	Saint John	Three Rivers	Ottawa	Toronto	Sudbury	Saskatoon	Vancouver
- pounds -							
<u>Cheddar a/</u>							
Mild, coloured	1.83	.10	1.64	.73	1.72	1.93	1.63
Medium, coloured	.84	-	.33	.73	.55	.07	1.15
Old, coloured	.02	-	.05	.42	.07	.24	.25
Mild, uncoloured	-	.91	.02	-	-	-	.05
Medium, uncoloured	-	.01	.01	.02	-	-	.01
Old, uncoloured	.03	.16	.46	1.11	.37	.01	.19
<u>Total Cheddar</u>	2.72	1.18	2.51	3.01	2.71	2.25	3.28
<u>Processed b/</u>	2.55	2.52	2.90	4.35	5.25	3.93	3.48
<u>Other Domestic</u>	.02	.15	.16	.16	.36	.05	.04
<u>Imported</u>	.06	.32	.28	.49	.35	.24	.92
<u>Total</u>	5.35	4.17	5.85	8.01	8.67	6.47	7.72

a/ Includes imported cheddar.

b/ Includes cream cheese.

Conclusions.- If all Canadians ate as much cheese per person as those living in Sudbury, Toronto and Vancouver, Canada's current production of cheese would not suffice to fill the demand. Canada's population is now about 15 million. This population at the rate of 8.0 pounds per capita would eat 120 million pounds of cheese. Attainment of the Ottawa and Saskatoon levels of consumption of about six pounds per person would more than suffice to balance consumption against the 1952 rate of cheese production. Since these levels of cheese consumption have already been attained in a group of representative Canadian cities it should be quite possible with aggressive marketing to reach such levels in all Canada within a few years.

Even such markets as Toronto and Sudbury may not be fully exploited. Their levels of cheese consumption are low as compared to some European countries. Moreover, where a large proportion of a population already uses considerable quantities of a food it may be easier to stimulate additional demand for it. For one thing retailers will be more willing to feature it. Thus, it might be easier to increase cheese consumption one pound per person in Sudbury than in Three Rivers.

Sales data by themselves cast little light on reasons for the striking contrast in cheese consumption between Sudbury and Three Rivers. The nature of Sudbury's industry may be a factor in this contrast. But the question arises whether cheese is sold as aggressively in Three Rivers as Sudbury. Is it as skillfully merchandized in the one market as the other? If not, would a more concerted selling effort in Three Rivers build up cheese sales in the course of time to the Sudbury level? No attempt can be made here to answer these questions, but they seem worthy of serious consideration by firms selling in these markets.

The possibility that sales of cheese may have been curtailed by lack of supply of certain types in Saint John has been noted. Mild cheddar is not a perfect substitute for old cheddar. Indeed, many who have a definite liking for one strength will refuse to eat the other. Likewise, many people who enjoy cheddar do not particularly like processed cheese. Therefore, all three strengths of cheddar should be made readily available throughout the year to maximize sales.

THE PATTERN OF CHEESE USE

The data gathered from wholesalers revealed the extent and nature of variations in total sales of cheese in the seven selected cities. Data gathered from consumers in three of these cities, namely Ottawa, Toronto and Vancouver, present a picture of how consumers use cheese.

Cheese may be eaten in a variety of ways. The most common manner of serving - especially with cheddar - is to put cheese on the table at mealtime either in ready cut pieces or in a large piece which may be broken or cut as used. Pieces of cheese are also frequently used for between meal and evening snacks, including party lunches. Cheese makes a tasty sandwich, either plain or toasted. There are a wide

variety of cooked dishes which include cheese. Cheese is also used in salads, even though this use does not appear to be very common.

Frequency of Eating Cheese. - During the Ottawa survey of 1952, about 60 per cent of the housewives interviewed were asked to report each time they served cheese during the past seven days, the manner of serving, and the number of persons eating cheese each time served. Not all families thus questioned were able to supply all these data but usable records were obtained from 227 families covering a total of 924 persons. These families reported a total of 3,023 servings of cheese or 3.3 servings per person per week.

Almost half the servings reported were pieces of cheese eaten at regular mealtimes. The use of cheese in between meal snacks and for parties was reported at .81 times per week or the equivalent of 42 times a year. The next most frequent use was in cooked dishes for an equivalent of 32 times a year. Use in sandwiches either plain or toasted was decidedly less frequent while there were very few mentions of cheese in salads. This latter fact was undoubtedly influenced by the fact that for each family the week covered was in either October or November. The frequency of other uses may also be affected by seasonal factors.

The variation in the frequency of various individuals' consumption of cheese is wide. Almost ten per cent of the Ottawa families interviewed on their use of cheese during the previous seven days had not eaten any cheese in this period. On the other hand, over ten per cent of the families reported having eaten cheese seven times per person or more often. Indeed, one man stated that he had eaten it four times every day during the week preceding the interview.

Similar variation in the frequency of using cheese undoubtedly exists in other cities. A few people eat cheese often and consume considerable quantities. It would be difficult to induce them to eat more. But many eat cheese once or twice a week or less often. If they were induced to eat cheese one more time a week there would be a considerable stimulus to sales.

Type of Cheese Related to Use. - Cheddar is considered by many people to be more appropriate for serving in pieces at mealtime or between meals and for cooked dishes than processed cheese. However, most housewives use both cheddar and processed cheese in these uses, and when questioned many express uncertainty as to which they use most. In practice, the proportion of housewives who use cheddar cheese in cooking exceeds the proportion who use processed cheese this way (Table 10). There is little difference between the number of families who use cheddar and processed cheese in pieces. Indeed, in Toronto, more people use processed cheese this way than cheddar. Processed cheese, probably as a result of its spreadability and the fact that it is sold in slices, is more generally accepted than cheddar for making sandwiches, either plain or toasted, in all three cities studied. Only about 20 per cent of all housewives use either type in salads.

Table 10.- Proportion of All Housewives Interviewed Ever Using
Cheddar and Processed Cheese in Specified Uses,
Ottawa, Toronto and Vancouver, 1951

Use	Ottawa		Toronto		Vancouver	
	Cheddar	Processed	Cheddar	Processed	Cheddar	Processed
	- per cent -					
In pieces	84	77	67	75	76	72
In plain sandwiches	57	71	45	73	62	75
In toasted sandwiches	57	71	46	73	59	69
In cooked dishes	75	54	57	44	70	37
In salads	20	22	15	21	15	13

Cooked Cheese Dishes.- While cheddar cheese is used more than processed in cooking in each of the three cities where the consumer surveys were conducted, there is some variation in the proportion of families using cheese in cooking and in the main dishes prepared. A slightly larger proportion of the Ottawa housewives, 89 per cent, than of Toronto and Vancouver housewives, 83 and 82 per cent respectively, used cheese in cooking.

In answer to the question: "What are the main dishes or ways in which you use cheese in cooking?", many housewives in all three cities mentioned only macaroni and cheese. Spaghetti and cheese was mentioned by over half the Ottawa housewives but by only 17 per cent of those Vancouver housewives who use cheese in cooking (Table 11). Such dishes as cheese omelets, cheese sauce and pastry and biscuits were mentioned by less than a third of the interviewed housewives who made cooked dishes with cheese. The failure of these and other dishes to receive more frequent mention suggests that many housewives may be unaware of the potentialities of cheese in cooking.

Table 11.- Relative Popularity of Specific Cooked Cheese Dishes,
Ottawa, Toronto and Vancouver, 1951

Dish	Housewives Mentioning as One of the Main Dishes in Which they Used Cheese in Cooking		
	Ottawa	Toronto	Vancouver
	- per cent <u>a/</u> of those who use cheese in cooking -		
Macaroni and cheese	89	85	89
Spaghetti and cheese	58	35	17
Omelet - eggs	29	30	24
Cheese sauce	34	29	30
Pastry and biscuits	29	19	19
Cheese casserole with vegetables	11	19	14
Welsh rabbit	12	13	16
Souffle - fondu	17	10	7
Baked, grilled, open sandwiches or cheese dreams	4	2	1
Topping	<u>b/</u>	2	4
Fish dishes	2	<u>b/</u>	<u>b/</u>
With baked or scalloped potatoes	3	<u>b/</u>	<u>b/</u>
Miscellaneous	7	5	6

a/ Adds to more than 100 since many housewives mentioned two or more dishes.

b/ Less than two per cent. Included in miscellaneous.

Seasonal Variation in Use of Cheese.- There appears to be a strong tendency to use more cheese in winter than in summer. The wholesale audit showed a marked increase in sales in the two winter months over the two summer months except in Three Rivers (See Table 1). The months selected to represent winter may have been a factor in this. Retailers probably increase their inventories of a wide variety of goods, including cheese, during November in order to be ready for the pre-Christmas rush. Sales in February would be affected by Lent. On the other hand, while some housewives state that they use more cheese in summer than in winter a larger number use more cheese in winter than in summer. Out of the 2,551 housewives interviewed in the four consumer surveys, about ten per cent thought that they used more cheese in summer than in winter, while 20 per cent thought that they used more cheese in winter than in summer. The other 70 per cent were not aware of any seasonal variation in the quantity of cheese they used.^{1/}

The preparation of more salads in the summer than in the winter was the reason most frequently given by those who reported a greater use of cheese in the summer than in the winter (Table 12). As three of the four consumer surveys included questions on cottage cheese, the use of cottage cheese in salads may have been a factor here. More frequent serving of sandwiches and of cold meals were also leading reasons for use of more cheese in summer than in winter. Lighter meals, in most instances, may have been merely another way of phrasing the foregoing reasons. None of the other reasons for greater use of cheese in summer than winter was expressed by more than one per cent of all housewives interviewed. Some of these, too, such as "use for picnics" are variants of the general theme that light cold meals are the reason for the use of more cheese in summer. Thus, among those who do use more cheese in summer than in winter, the basic reason for doing so is its convenience in light and cold meals.

Consequently, it is rather surprising that reasons essentially converse to the foregoing are given for greater use of cheese in winter than in summer by those who believe that they eat the most cheese in winter (Table 13). Yet, such statements as "more hot dishes", "require more energy", "have heavier meals" were given as explanation by over half the housewives who used more cheese in winter. Apparently, the two groups of housewives have an entirely different concept of the use of cheese. The one thinks of cheese primarily as a food for use in light or cold meals, lunches and so on, the other as a food for cooking and as a part of major or heavy meals.

That a family did "more entertaining", ate "more sandwiches" or "more snacks" might be true in either winter or summer according to family habits. As might be expected, however, "more entertaining" and

^{1/} Questions on cottage cheese were included in 2,145 of the schedules used. This undoubtedly resulted in a larger proportion of the housewives reporting more use of cheese in summer than in winter than would have done if only other types of cheese had been discussed during the questionnaire. It may have also reduced the proportion reporting use of more cheese in winter.

"more snacks" were mentioned with greater relative frequency in connection with winter than with summer. On the other hand, "more sandwiches" (even if "more lunches" is considered to be the same) was a more frequent reason for cheese consumption in the summer exceeding that in the winter rather than vice versa.

Table 12.- Reasons Given by Housewives for Using More Cheese in Summer than Winter, Ottawa, Toronto and Vancouver, 1951-52

Reason	Frequency	
	- number -	- per cent -
More salads	62	20
More sandwiches	61	19
More cold meals	51	16
Lighter meals	30	9
Substitute for meat	24	8
Use more cottage cheese	22	7
Easy to prepare	20	6
Use for picnics	16	5
More snacks	15	5
More entertaining	11	3
Other	4	1
None stated	2	1
Total	318	100

Table 13.- Reasons Given by Housewives for Using More Cheese in Winter than in Summer, Ottawa, Toronto and Vancouver, 1951-52

Reason	Frequency	
	- number -	- per cent -
More hot dishes	238	41
Require more energy - heavier meals	84	14
More entertaining	47	8
More sandwiches	39	7
More snacks	34	6
Replacing fruits and vegetables	33	6
Larger family in winter - home more	23	4
More in lunches	15	2
Substitute for meat	12	2
Other	35	6
Not stated	22	4
Total	582	100

The mention by a number of housewives of cheese replacing fresh fruits and vegetables seems rather peculiar at first sight, as cheese is not generally considered to be a substitute for such foods. However, the various phrasings given of this reason suggest that what the housewife has in mind is that in winter she cuts down on her use of fresh fruits and vegetables because of their higher cost and seeks other foods to provide nutritional variety and colour in meals. Cheese is a food which frequently plays such a role. Thus, it is not a matter of direct substitution but rather one of maintaining variety in the winter diet without unduly increasing its cost. Strangely, all but three of the times this reason was mentioned were in the two Ottawa surveys.

Difficulties in Obtaining Type Wanted.- The very small sales of some types of cheddar in Saint John and Three Rivers suggest that they may, on occasion, be difficult to obtain in these cities. In the three cities in which the consumer survey was conducted -- Ottawa, Toronto and Vancouver -- there is nothing in the sales data to indicate such a situation. Nevertheless, some housewives did complain about difficulties in getting the type of cheddar they wanted. Indeed, in each of the three cities, 13 to 16 per cent of the housewives who used cheddar said they had this difficulty.

No relation was found between the frequency of this type of complaint and the type of store where most of the groceries were bought. This did not necessarily mean that difficulties in obtaining cheddar of the desired type occurred with equal frequency in all types of store. Some may have referred to isolated difficulties, possibly occurring at different stores than the one from which most of the groceries were bought. After all, about 85 per cent in each city did not mention any difficulty in buying the type of cheddar they wanted.

The nature of this difficulty, where any was mentioned, was usually that the desired strength - mild, medium or old - was not always available. Mention was also made of difficulty in obtaining coloured or uncoloured cheddar, presumably of a specified strength. A few respondents stated that periodically they were unable to obtain the brand of cheddar they liked.

Undoubtedly, this problem of availability had some effect on cheese consumption. Probably, the effect was small in Ottawa, Toronto and Vancouver, since this problem was mentioned by only a small proportion of the families interviewed and was not necessarily persistent even for those who mentioned it. Yet the number of those mentioning this problem in these large cities suggests that the trade needs to maintain constant vigilance lest unavailability of desired types of cheese in certain stores impair sales.

Aside from availability, criticisms of the method of selling cheese were made by seven to nine per cent of the housewives interviewed in each city. In Vancouver, but not in the other two cities, these criticisms appeared to be directed mainly at practices of independent stores. It would be difficult to reduce the extent of

criticism on this score much further as the criticisms varied widely in their nature, and changes suggested by some critics would be found objectionable by others. The most common criticism was that cheese was sold either unwrapped or inadequately wrapped, but this criticism was made by no more than four per cent of the housewives using cheddar in any of the three cities.

With respect to the quality of cheddar cheese very few complaints were made. Since a few would probably complain irrespective of what quality standards were maintained, the implication is that consumers in Ottawa, Toronto and Vancouver are generally well satisfied with the quality of cheese offered.

Conclusions.- Cheese was eaten in the fall of 1952 in Ottawa about 3.3 times a week with about half the uses being in the form of pieces at mealtime. This pattern would differ in other cities and at other times of the year, but it is likely that pieces at mealtime is the most popular way of using cheese across Canada.

Consumption of cheese daily and even more often by a few people was an important factor in bringing about this 3.3 times a week average for Ottawa. About ten per cent of the families had not eaten cheese at all during the preceding week and many others only once or twice. The question may well arise whether these families are fully conscious of the variety of possible uses of cheese.

The anomaly that some people eat more cheese in summer than in winter because of its suitability for light, cold meals and other people eat more cheese in winter than in summer because of its suitability for heavy, cooked meals is also significant. Perhaps neither group fully recognizes that cheese fits in very well in either light or heavy meals. Likewise, the relatively small proportion of housewives mentioning the preparation of cheese dishes other than macaroni and cheese and spaghetti and cheese suggests that there may be many housewives who are unaware of the wide variety of tasty cheese dishes that can be prepared. Consequently, publicity on the many uses of cheese, its adaptability to all types of meals, and how it fits into either the main course or dessert might well stimulate sales of cheese.

Problems of availability of types of cheddar were not serious in the three cities of the consumer survey but were mentioned with sufficient frequency to indicate the need for the trade to exercise constant vigilance in order to have all types of cheddar cheese readily available. There was little criticism of the methods of retailing cheese and the quality offered.

EFFECT OF SOCIO-ECONOMIC LEVEL ON CHEESE CONSUMPTION

Sales effort can be directed more readily to broad socio-economic groupings of people than to families of specific income levels. Accordingly, data relating use of cheese to such broad groupings may have even more

value than that relating it to income only.

To obtain socio-economic groupings, interviewers classed families on the basis of impressions formed during the interview, taking into consideration neighbourhood, living accommodation, furnishings, and other evidences of level of living as well as income. In general, families of business owners and managers, professional men, and highly skilled tradesmen were classed as upper socio-economic level. This group represents the most prosperous quarter of the community. Where there was clear-cut evidence of economic hardship about the home the family was classed as lower socio-economic level. About ten per cent of the families interviewed fell in this category. The remaining two-thirds were placed in the middle level.

Types of Cheese Ever Used.— The proportion of families using each type of cheese, except mild and old cheddar, declined consistently as economic level fell (Table 14). This relation was most marked for "special" cheeses with twice as large a proportion of upper level families consuming this type as lower level families. In view of the inclusion of all the relatively high priced foreign types of cheese in the "special" class, this result was fully expected.

Table 14.— Types of Cheese Ever Used in Relation to Socio-Economic Level, Ottawa, Toronto and Vancouver, 1951

Type of Cheese	Socio-Economic Level					
	Upper		Middle		Lower	
	Number	Per cent	Number	Per cent	Number	Per cent
Cheddar (any type)	422	81	1,073	76	172	77
Mild	169	32	546	39	73	33
Medium	259	50	604	43	93	42
Old	230	44	455	32	76	34
Processed	483	93	1,237	88	179	81
Cottage	322	62	741	53	97	44
Special	332	64	559	40	72	32
None	2	a/	25	2	9	4
Total families	520	100	1,403	100	222	100

a/ Less than 0.5 per cent.

The lesser proportion of families of low than of high economic level which use cottage cheese is more noteworthy. In view of the high nutritive value of cottage cheese expansion of its market among the lower economic strata would appear to be highly desirable.

While over three-quarters of the families in all economic classes sometimes used processed cheese, the proportion of users increased with

economic level. However, in view of the comparative size of the groups, the largest number of potential new buyers is to be found among families of the middle class. In general, expansion of the market for this type of cheese appears to depend mainly on increasing usage by present buyers.

The variation in proportion of families using some type of cheddar is so narrow that it does not necessarily indicate any definite relation between use and economic level. However, the variations with respect to use of specific types of cheddar probably represent actual relationships. The tendency of families of the lower economic level to be less likely to use old cheddar than those of the higher economic level is strong in Ottawa and moderate in Vancouver, but non-existent in Toronto.

Quantity of Cheese Used.- Considering that the proportion of the families in the top economic stratum using each major type of cheese was largest, one might expect the highest cheese consumption per person among such families. Data obtained on this point consisted of the housewives' estimates of purchases for the seven days immediately preceding the interview. Such estimates probably contain an upward bias, but it is unlikely that this bias is correlated to economic class. Accordingly, the average purchases per person per week reflect with reasonable accuracy the relative purchases by the various economic classes.

Total cheese purchases per person per week were about 15 per cent higher by the "upper economic level" group than by the "lower economic level" group (Figure 1). About half of this spread was accounted for by "special" cheese, which included the highest priced cheeses. Difference in size of family may account for the remainder of the difference in total cheese consumption apparently related to socio-economic level.^{1/} In Toronto those "lower level" families who did use cottage cheese reported its use in much larger quantities than user families in other economic classes. Their influence on quantity used per person was sufficient to offset the smaller proportion of "lower level" families using this type of cheese in the three cities.

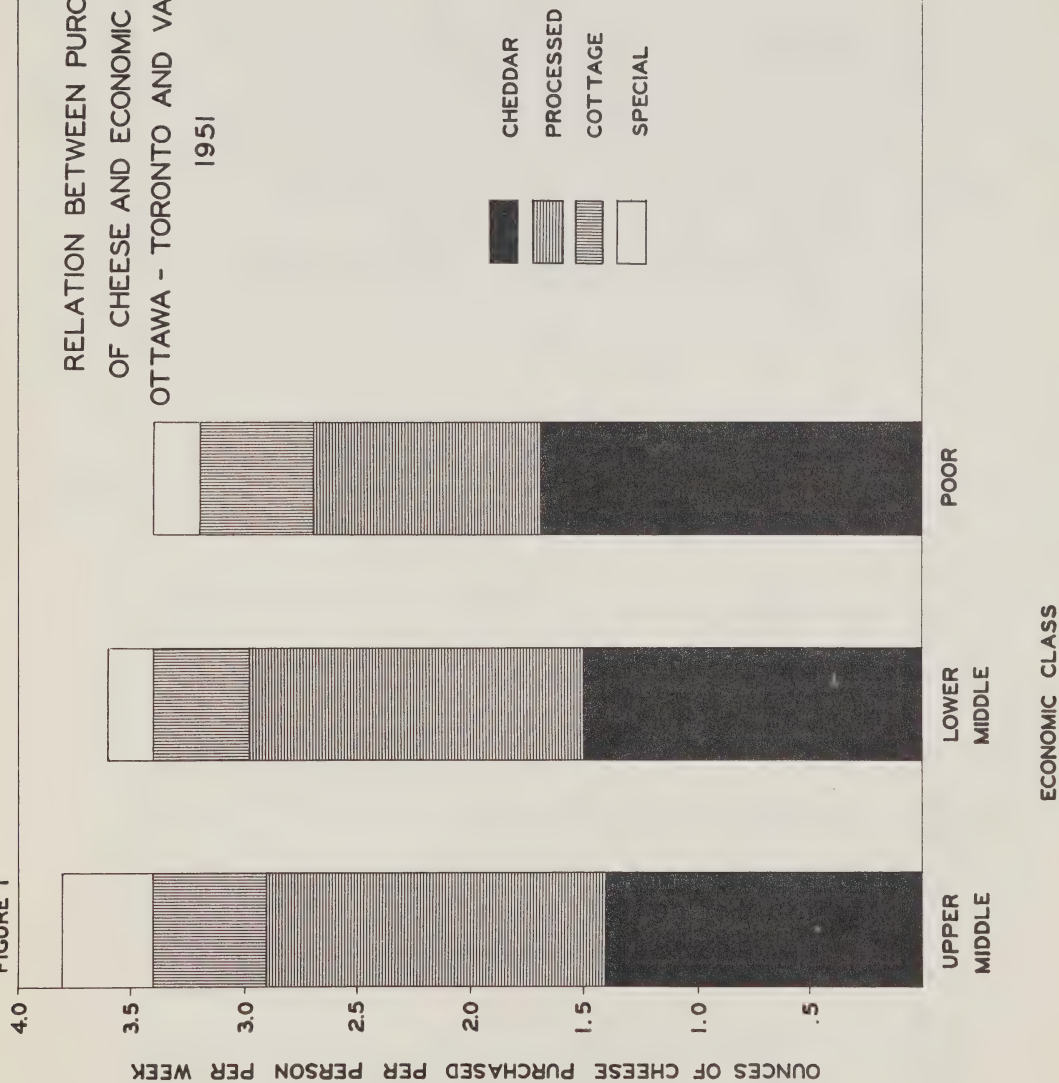
It is quite significant that purchases of processed cheese drop sharply in the lowest economic group while those of cheddar increase somewhat. Processed cheese in competing with cheddar has to overcome a price differential. These data suggest that only those who face a certain amount of economic hardship allow price to influence their choice between cheddar and processed cheese.

In both Ottawa and Toronto the proportion of families using cheddar cheese in plain untoasted sandwiches rose sharply as economic level declined. A similar relation was observed with respect to the use of cheddar in toasted sandwiches in Toronto, and in salads in Ottawa and

^{1/} Cheese consumption per person declines sharply as size of family increases. (See Figure 2). The average size of family increases somewhat as economic level declines. Thus, at least part of the apparent difference in total cheese consumption associated with economic level is a size of family effect.

FIGURE 1

RELATION BETWEEN PURCHASES
OF CHEESE AND ECONOMIC CLASS
OTTAWA - TORONTO AND VANCOUVER
1951



Vancouver. The proportion of families using cheddar in other ways appeared to be independent of economic level. As some types of processed cheese have special advantages over cheddar in those uses where the proportion reporting declined as economic level rose, relative cost of cheddar and processed may be the main reason for the relation noted.

The proportion of the families interviewed using processed cheese in specific ways generally declined as economic level fell. A major exception was that a larger proportion of the poor families than of the other economic classes in Toronto used processed cheese in sandwiches. This was offset, however, by the reverse situation in the other two cities so that when the data were combined no clear-cut relation remained between economic level and the use of processed cheese in sandwiches.

Opinion of Cheese.- The tendency for purchases to increase with rising economic level could arise from differences in consumers' attitudes towards cheese. In this connection, the question was asked: "In relation to most other foods you serve, would you say cheese rates high, average, or low for nourishment, (for ease of digesting), (as an economical food)?"

Table 15.- Opinion of Cheese as Related to Socio-Economic Level, Ottawa, Toronto and Vancouver, 1951

Rating of Cheese in Relation to Most Other Foods	Socio-Economic Level			
	Upper	Middle	Lower	Total
- per cent giving rating -				
a. For Nourishment				
Very high	59.0	51.7	49.1	53.2
Fairly high	22.9	25.9	24.8	25.0
Average	13.8	16.1	17.6	15.7
Fairly low	1.5	1.2	0.0	1.2
Very low	0.4	1.1	1.4	1.0
No idea	2.3	3.9	7.2	3.9
b. For Ease of Digesting				
Very high	39.6	32.4	33.3	34.3
Fairly high	25.4	24.9	27.5	25.3
Average	26.5	30.6	25.2	29.1
Fairly low	3.8	4.8	5.8	4.7
Very low	1.7	3.3	1.4	2.7
No idea	2.9	3.8	6.8	3.9
c. As an Economical Food				
Very high	34.2	22.8	25.2	25.8
Fairly high	23.6	25.4	20.7	24.5
Average	33.5	36.8	35.1	35.8
Fairly low	3.6	6.2	8.1	5.8
Very low	1.9	4.3	4.0	3.7
No idea	3.1	4.5	6.8	4.4

On all three scores the upper socio-economic level families tended to give the highest ratings (Table 15). This relation was strongest in the opinions relative to the economy of cheese in the diet. More housewives of the lower level rated cheese average or lower as an economical food than rated it above average. These ratings were made at a time when both meat and egg prices were at or near their record highs during the postwar period. With the possible exception of some kinds of fish, cheese was at this time the cheapest source of animal protein.

Conclusions.- From the marketing viewpoint the most significant finding on the relation of economic level to use of cheese is that even though total purchases of cheese increase as economic position improves, those of cheddar cheese decline. There is nothing illogical about this. Cheddar cheese is a staple food and is normally one of the cheapest animal protein foods on the market. Thus, it was no accident that bread and cheese became the traditional workman's lunch in England.

This economy of cheese as a protein food needs to be exploited. It is important to convince people that cheese, especially cheddar, is a relatively cheap food. The big potential market consists of the middle and lower classes. To them food value received for money is important.

EFFECT OF ORIGIN ON CHEESE CONSUMPTION

Food consumption habits vary between countries. Immigrants to Canada bring with them their eating habits. Accordingly, we can expect to find a relation among Canadians between cheese consumption and country of origin. However, after a generation or two of intermingling with other Canadians, the eating habits brought from the country of origin are merged with those of the community. Thus, a characteristic Canadian pattern of food consumption habits has developed. Nevertheless, where an ethnic group forms its own community, distinctive eating habits are likely to persist.

With respect to cheese, this characteristic pattern can be described on the basis of information supplied by housewives in Ottawa, Toronto and Vancouver. In an effort to evaluate residual effects of country of origin, each of the Toronto and Vancouver housewives was asked to state her father's country of origin. The great majority, 78 per cent in Toronto and 81 per cent in Vancouver, were British. The only other national origins of which enough housewives were interviewed to place any reliance on relative results were West European, East European and Jewish and Syrian.

Ottawa differs from Toronto and Vancouver in providing a representation of both French and British cultures in Canada. Most of the people are from families who have resided in Canada for several generations. Accordingly, comparisons of cheese consumption habits of French and English-speaking Canadians were possible. For making such comparisons, the extent of assimilation of a family into either French or British Canadian culture is more significant than its European origin. Relative facility with the two languages appeared to be the best indicator of cultural group

for these people. To obtain these data the housewives were asked which languages they spoke and which they used most in their homes.

In the 1952 Ottawa survey the origin question was dropped and replaced by one on birthplace of the interviewee, her parents, her husband, and his parents. This provided a basis for comparing the cheese consumption patterns of persons born in Ontario and Quebec.

The effect of origin, language and birthplace on cheese consumption is most likely to be apparent in the data obtained on amounts purchased, liking for cheese, and preference as to type.

National Origin.— So far as the Toronto and Vancouver records were concerned, rates of cheese consumption for families of British and other West European origin were very similar (Table 16). The British did purchase twice as much old cheddar per person as the other West European families. This difference was reflected in the total cheddar and total cheese purchases. Quantities purchased per person of all other types vary only to a minute extent.

Table 16.— Relation of Cheese Purchases to National Origin
Toronto and Vancouver, 1951

Type of Cheese	National Origin					
	All Families	British	European	East European	Jewish and Syrian	Other
— ounces per person per week —						
Cheddar						
Mild	.3	.4	.4	.1	.3	.0
Medium	.6	.6	.5	.5	.2	.1
Old	.5	.6	.3	.3	.2	.1
Total cheddar	1.4	1.6	1.2	.9	.6	.2
Cottage	.5	.4	.5	1.3	1.8	.1
Special	.3	.2	.3	.8	.4	.1
Processed	1.5	1.5	1.4	1.3	1.8	.8
Total, all Types	3.7	3.7	3.4	4.3	4.6	1.2
— number —						
Total Families	1,637	1,299	176	75	70	17

The cheese purchase pattern for the East European and Jewish and Syrian families is quite different. Smaller quantities of cheddar but much larger amounts of cottage cheese are purchased. Cottage cheese is

used to much greater extent in Eastern Europe than in Western Countries. The East European families also use much more of the "special" cheeses than any other group. In view of the small number of families in each of these groups the small difference in their rate of purchase of processed cheese from the survey average does not necessarily mean a real difference in rate of consumption. It is the influence of cottage cheese which makes the total purchases per person high for the East European and Jewish and Syrian families.

The "other" group of families consists mainly of Chinese and Japanese. The number included in the sample is too small to provide a reliable indication of their rate of cheese consumption.

All except 16 families in the Ottawa survey of 1951 gave their racial origin as either British or West European. The purchase pattern for British families was similar to that of the combined British group for Toronto and Vancouver, except that mild cheddar was used in greater quantities. The West European families, however, reported relatively large purchases of mild cheddar, 1.7 ounces per person per week. They bought less of every other type of cheese than West European families interviewed in Toronto and Vancouver. Nevertheless, they reported total cheese purchases of 3.7 ounces per person per week, of which less than 0.1 ounces was cottage cheese.

The relation found between total purchases of cheese and the housewife's origin did not appear to arise from basic differences in liking for cheese. Each housewife was asked: "Would you say you like cheese a lot, just fairly well, or don't like it much?" There was no statistically significant relation between the answers given in reply to this question, and origin. 1/

There are, however, some definite relations between origin and type of cheese preferred. A larger proportion of the housewives of British origin prefer cheddar cheese, especially old cheddar, than those of the other racial origins (Table 17). Cheddar cheese receives fewest first preferences among Jewish and Syrian families, who appear to be very fond of cottage cheese.

Little relation is apparent between origin and proportion preferring processed cheese, except that fewer Jewish and Syrian families give it first choice.

Only among Jewish and Syrian and East European families are there substantial proportions of people who prefer cottage cheese to other types.

Most of the special cheeses are types which have their origin in various parts of Continental Europe. Accordingly, it is to be expected

1/ A relation is considered to be statistically significant when the probability of its appearing by chance in the sampling is very low, say less than one in 20. Here the chi-square test indicated that apparent relations could arise by chance about once out of three samples of the size used.

that a smaller proportion of British families than of the other origin groups should prefer them.

Table 17.- Relation Between National Origin of Housewife and Type of Cheese Preferred, Toronto and Vancouver, 1951

Type of Cheese Preferred	: British	: West European	: East European	: Jewish and Syrian
	- per cent -			
Cheddar				
Mild	10	9	1	10
Medium	20	17	11	4
Old	17	9	7	2
Total Cheddar	47	35	19	16
Processed	35	37	37	29
Cottage	2	2	13	34
Special	7	14	21	9
No definite preference	9	12	10	12
Total	100	100	100	100
	- number -			
Total housewives answering question	1,273	170	75	70

Language.- Those West European families in Greater Ottawa who did not report a language other than English and French were divided into three groups:

1. those who spoke only French;
2. those who spoke both French and English and used French mostly or else the two languages equally in their home;
3. those who spoke both English and French but used English mostly in their home.

As the third group included only 12 families no analysis was made of its reported purchases.

As between the first two groups the difference was startling. Those speaking French only reported purchases of 2.5 ounces per person per week while the bilingual families reported purchases of 3.8 ounces as compared to 3.2 ounces for British families. The bilingual group purchased more than those who spoke French only, of every type of cheese

except medium cheddar. This relation in cheese purchases was confirmed by the 1952 survey.

This sharp difference in the rate of cheese consumption between families who speak French only and bilingual families may have a bearing on the contrast in sales of cheese between Three Rivers and Sudbury found in the wholesale audit phase of this study. Most of the large French minority in Sudbury are bilingual while only a small proportion of the population of Three Rivers freely use the English language.

Mild cheddar is generally preferred to any other type of cheese by the French speaking families of Greater Ottawa (Table 18). This is strongly evident among the small group of housewives who speak French only. Those who can also speak English are somewhat more likely to express a preference for some other type of cheese than those who speak French only.

Table 18.- Relation Between National Origin and Language in Greater Ottawa and Type of Cheese Preferred, 1951

Type of Cheese	National Origin and Language			
	BRITISH	EUROPEAN	WEST EUROPEAN	Other
	: Speak English: Speak French: French equally or: All			
	: only or mostly: only: French mostly: Other			
	- per cent preferring -			
Cheddar				
Mild	23	59	48	20
Medium	14	5	10	16
Old	19	0	4	16
Total Cheddar	56	64	62	52
Processed	27	28	23	27
Cottage	1	0	0	0
Special	12	5	13	16
No definite preference	4	3	2	5
Total	100	100	100	100
	- number -			
Housewives answering question	261	38	142	63

British housewives who speak only English, and those in the "all other" group (most of whom are of English speaking families but non-British

in origin) are most likely to prefer medium or old cheddar. However, even of these groups a larger proportion like mild cheddar best than like old best.

The proportion of housewives preferring processed and cottage cheese to other types does not appear to be related in the Ottawa area to language spoken. On the other hand, only two of those housewives who spoke French only expressed preference for some special type of cheese; 13 per cent of the bilingual group expressed such preference.

Birthplace.- To cast further light on the relation between cultural background and the use of cheese, information on the birthplace of both the housewife and her husband was obtained in the 1952 survey. Those families where both were born in Quebec reported purchases of 3.3 ounces per person per week as compared with 4.0 ounces where both were born in Ontario. Purchases of mild cheddar were identical by the two groups but the Ontario born used more of other types of cheese. As the Quebec born families embraced three-quarters of the group who spoke French only this difference, to a considerable extent, reflected the language difference. Among the Quebec born those who spoke French only purchased 2.8 ounces as compared with 3.6 ounces for the others.

In conformity with the purchase pattern, whether an Ottawa housewife is born in Ontario or Quebec does not affect the likelihood of her preferring mild cheddar to other types of cheese. Ontario and Quebec born individuals are equally likely to prefer mild cheddar. On the other hand, processed cheese is not as well received by the Quebec born as by others in this area.

The pattern of preferences among citizens of Greater Ottawa born elsewhere than in Ontario or Quebec is quite different. The proportion of these people preferring mild cheddar is relatively small, while the proportion preferring other strengths of cheddar and special cheese is relatively large in comparison with the Ontario and Quebec born.

Conclusions.- It is evident that Canadians of British ancestry are heavier consumers of cheddar cheese than those of other origins. Consumption of processed cheese varies little with origin, except that Jewish and Syrian families tend to use larger quantities than other groups.

While West European families in general eat almost as much cheese as British families, those who speak French only are relatively light cheese eaters. On the other hand, bilingual families of French origin appear to eat more cheese than those of British origin. Thus, acquisition of ability to use the English language appears to lead to an increase in the use of cheese. It is unlikely that the mere fact of learning the English language has any effect on eating habits. However, knowledge of English exposes the individual to advertising and publicity in English which may stimulate interest in cheese. Advertising and other publicity in English reaches the bilingual population of a city like Ottawa, but not those who speak French only. Can it be that the French Canadian market for cheese is lagging through neglect?

Certainly, there can be no strong prejudice against cheese among French Canadians when those of their number who speak English tend to eat as much or more cheese than other Canadians. There may be a failure to promote cheese adequately. Since most French Canadians do not eat meat on Friday, it is probable that they would eat more cheese than English speaking Canadians if equally conscious of its food value and of the variety of cheeses which can be bought.

EFFECT OF FAMILY COMPOSITION ON CHEESE CONSUMPTION

Family composition appears to influence use of cheese to a greater extent than origin. To explore this relation, families for whom data were obtained were classified firstly according to the number of persons in the household and secondly according to the age of children in the family. Both classifications revealed clear-cut relations to cheese purchases but there are some difficulties of interpretation.

The presence of children in a family is correlated to the age of the housewife and of her husband. The housewife was over 50 in 68 per cent of the all-adult families for whom records were obtained in 1951, but in those households including children under ten years old only seven per cent of the housewives were over 50. The proportion of households in which the male head of the house was over 50 was slightly greater in both cases. Accordingly, the following discussion of the effect of family composition on cheese consumption includes some evaluation of the effect of the age of the housewife and of the male head of the home.

Purchases of Cheese.- There is a marked tendency for purchases of cheese per person to decrease as the number of persons in a household increases (Figure 2). In fact, families of six or more persons buy less than half as much cheese per person as families of one or two persons. This relation applies not only to the total cheese but to each type except mild cheddar and processed cheese.

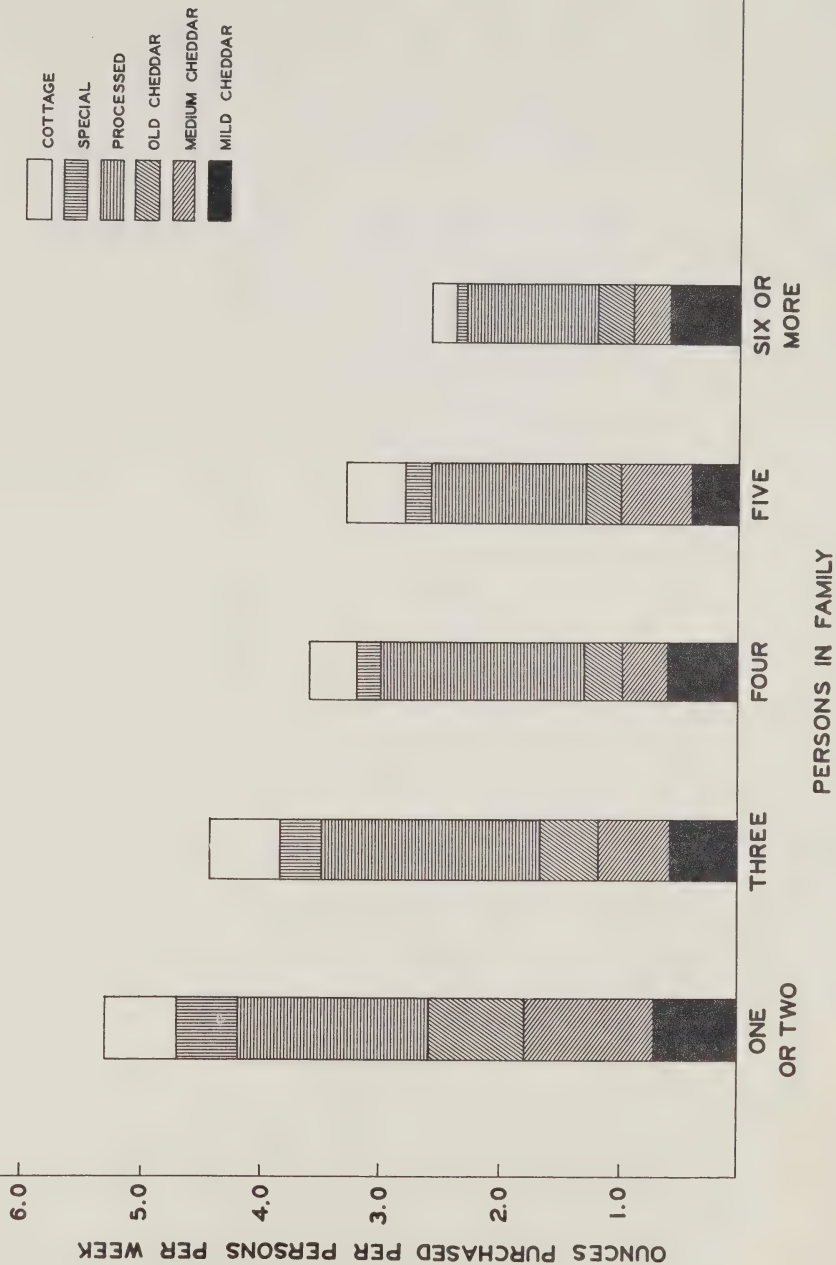
Generally speaking, the smaller households either include no children or average fewer children than the larger households. Accordingly, if children eat less cheese than adults, or different types of cheese, this will be reflected in the consumption data related to size of family.

An effort was made to estimate cheese consumption by children ages 10-17 and under ten from the data of the survey. In so doing the following assumptions were made:

1. When large groups of households are combined, purchases of the group during the past seven days approximately equal their consumption in that period.
2. The adults in families including children eat the same amount and types of cheese as those in other families.

FIGURE 2

RELATION OF PURCHASES OF CHEESE TO NUMBER OF PERSONS IN FAMILY



On the basis of these assumptions, an estimate was made of the consumption of cheese of each type by the adults in each class of family. The estimated cheese consumption of the adults in families including children was subtracted from their total purchases to obtain the apparent amount of cheese eaten by the children. On the basis of the data obtained it was possible to do this separately for families in which all children were 10-17 and all children under ten.

The results of this analysis indicated that children, especially the younger ones, eat much less cheese than do adults (Table 19). It is even more striking that children appear to eat as much processed cheese as adults do, the reduction being confined to other types.

Table 19.- Apparent Consumption of Cheese by Adults and Children During 7 Days, Ottawa, Toronto and Vancouver, 1951

Type of Cheese	Age Group		
	Adults	Children 10-17	Children under 10
- ounces per person -			
Cheddar			
Mild	.8	.3	- .1
Medium	.8	-.2	- .1
Old	.7	.1	a/
Total Cheddar	2.3	.2	- .2
Cottage	.6	.7	.1
Processed	1.5	1.9	1.5
Special	.4	.1	.1
Total	4.8	2.9	1.5
- number -			
Total families	883	285	687
Persons per family	2.57	4.24	4.16

a/ Less than .05.

The negative quantities indicated for some types of cheese cast some suspicion on the validity of the assumptions used. Certainly, some children do eat medium cheddar and some younger children eat mild cheddar. Thus, it is apparent that the adults in the families including children did not have precisely the same pattern of cheese consumption as the all-adult families. Differences could arise from two sources. Firstly, children may influence the food consumption pattern of their parents. If a child protests vigorously against cheddar cheese and the mother has no definite preference for cheddar rather than processed cheese, she may

habitually buy the processed to please the child. Secondly, the adults in families including children probably average younger than in the all-adult families, and younger adults may have different cheese eating patterns than those of older adults.

Only a partial check on the latter possibility could be made from the information gathered. Ages were obtained of the housewife and of the man of the house. This meant that, in homes consisting of one man and his wife, but not in those including other adults, the age of each member of the household was known. To determine whether older adults have a different cheese eating pattern than younger adults, data were compiled on purchases by households in which all members were known to be 50 or older. These data reveal that within two person all-adult families, age has little effect on total cheese consumption, even though older people eat more old cheddar cheese than adults under 50 years of age (Table 20).

Table 20.- Relation Between Age and Number of Persons in All-Adult Families and Purchases of Cheese in 7 Days,
Ottawa, Toronto and Vancouver, 1951

Type of Cheese	Family Class		
	: One or Two	: Other All-Adult	: All-Adult Families
	: Persons all	: One or Two Persons	: of More than
	: 50 or over	: Families	: Two Persons
- ounces per person per week -			
Cheddar			
Mild	.6	.8	.9
Medium	1.1	1.0	.5
Old	1.0	.6	.5
Total Cheddar	2.7	2.4	1.9
Cottage	.6	.8	.5
Processed	1.6	1.7	1.5
Special	.4	.5	.3
Total Cheese	5.3	5.4	4.2
- number -			
Total Families	339	190	354

On the other hand, the rate of consumption of all types of cheese, except mild cheddar, is lower for all-adult families of more than two persons than for the smaller families irrespective of age. The exception of mild cheddar in this regard may arise from the inclusion of a greater proportion of French Canadian families of the Ottawa area among the larger families than among the smaller all-adult families. These French

Canadians, as previously noted, are relatively very heavy consumers of mild cheddar.

From the foregoing analysis it appears that any difference in average age of adults in families including children as compared with all-adult families did not greatly distort the estimate of cheese consumption arrived at for children in Table 19. In view of the apparent close relation between size of family and purchases of cheese in all-adult families, the assumption used may have led to some underestimate of children's cheese consumption arising from a size of family influence. Thus, our conclusions become:

1. Children apparently eat as much processed cheese on the average as adults, but considerably less cheddar.
2. Children under ten eat less cheese of most types than older children.

Apparent Consumption vs. Requirements.- From the nutritional point of view the fact that children eat less cheese than adults has little significance since their food requirements are lower. What is more important is whether each age group is obtaining all the cheese that is needed.

Rather than including it in a general food group, nutritionists consider cheese to be sufficiently important to suggest specified allowances of cheese per week for different classes of individuals. The amounts recommended are as follows:^{1/}

Child 1 to 3 years	- 1 ounce per week
Child 4 to 6 "	- 2 ounces
Child 7 to 12 "	- 3 ounces
Girl 13 to 20 "	- 4 ounces
Boy 13 to 15 "	- 4 ounces
Moderately active woman	- 3 ounces
Boy over 15	- 6 ounces
Moderately active man	- 6 ounces

How do these suggested amounts compare with the apparent consumption rates for cheese indicated in Table 19? As the all-adult families are approximately half men and half women their rate of cheese consumption is very near that suggested by nutritionists. The picture with respect to children 10-17 is less satisfactory. The recommended quantity for individuals in this group is 3-6 ounces of cheese per week. Considering the age composition of the group, the average suggested allowance would exceed four ounces as compared with an apparent consumption of less than three ounces. The average suggested allowance for children under ten would exceed two ounces as compared with an apparent consumption of 1.5 ounces. Thus, both

^{1/} Healthful Eating, Nutrition Division, Department of National Health and Welfare, Ottawa, Canada, 1952, p.24.

groups of children appear to fall short of their suggested cheese allowance by about 25 per cent.

The actual disparity between cheese consumption and the suggested allowances of nutritionists is considerably greater. The reported purchases of the interviewed families, if bought every week of the year, would amount to 12 pounds per person per annum including cottage cheese, while the apparent domestic disappearance of cheese in Canada is about six pounds per person per year including cottage. Thus, it would appear that Canadian adults eat about one half of the suggested allowances and children three-eighths. The fact that some people exceed these allowances only suggests that others fall further short of them.

It is to be recognized, of course, that this disparity does not necessarily indicate any nutritional deficiencies. Other animal protein foods, and especially other dairy products, can satisfactorily replace cheese in the diet. Nevertheless, those who wish to sell cheese might well capitalize on the fact that nutritionists recommend a much higher level of cheese consumption than most Canadians practise.

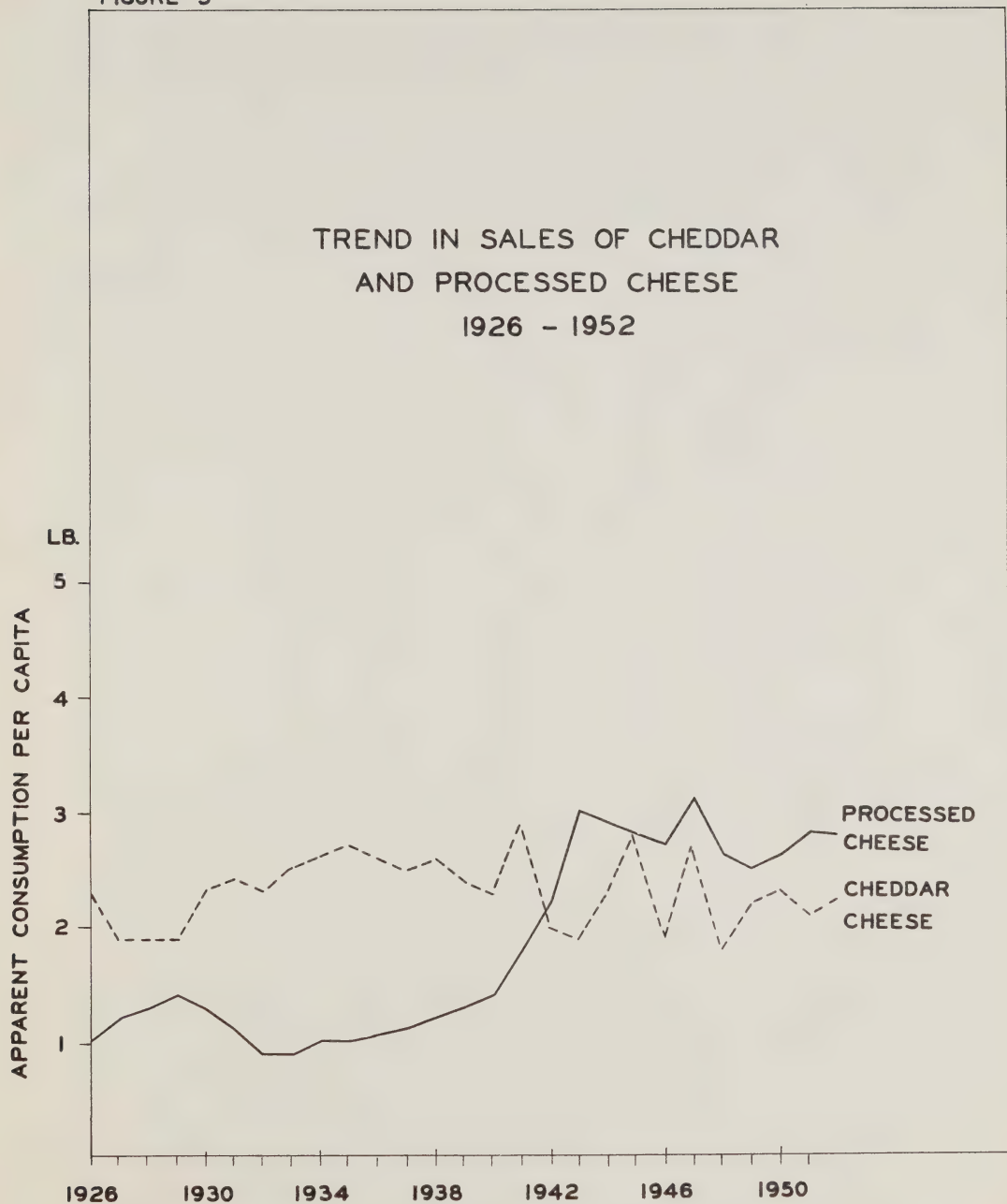
Cheese Preferences as Related to Age.- The tendency for children to eat less cheese than adults is not supported by housewives' statements as to whether their children like cheese a lot, fairly well, or not much. According to the housewives' statements, the proportion of husbands and of children who like cheese a lot is only slightly different from the proportion of housewives who do so. There was a definite tendency for the proportion of both men and women liking cheese a lot to increase with age.

There are, however, some definite relations between the type of cheese preferred and age of the individual. As age increases, the likelihood of the individual preferring processed cheese to any other type decreases (Table 21). Thus, over half of all children, as compared with less than a quarter of adults over 50, prefer this type. On the other hand, only a quarter of the children, as compared with over half of the adults over 50, prefer cheddar cheese. Among types of cheddar it is noteworthy that there is little, if any, relation between age and the proportion preferring mild cheddar. However, the proportion preferring old cheddar increases sharply with age.

Some might conclude from the data of Table 21 that the market for cheddar cheese, especially old cheddar, in Canada is apt to contract as time goes on and the young people of today become the older people of future decades. Such a conclusion would not be well founded for two reasons.

The first of these is that despite rapid gains in the sales of processed cheese since 1926 there has been no downward trend in sales of cheddar cheese per person (Figure 3). Thus, the expansion of the market for processed cheese brought about by advertising and development of new types has not reduced the market for cheddar cheese. Rather, cheddar cheese had held its own despite limited advertising.

FIGURE 3



This could not have happened had an older generation which preferred cheddar been undergoing a gradual replacement with a younger generation which preferred processed cheese.

Table 21.- Type of Cheese Preferred as Related to Age

Type of Cheese	Age Group					
	Under 10	10-17	18-29	30-39	40-49	Over 50
- per cent who prefer -						
Cheddar						
Mild	12	12	16	14	14	15
Medium	10	9	16	16	16	21
Old	4	6	8	13	18	22
Total Cheddar	26	27	40	43	48	58
Processed	53	54	43	33	26	22
Cottage	3	3	2	2	4	2
Special	4	2	9	13	13	8
No definite preference	14	14	6	9	9	10
Total	100	100	100	100	100	100
- number -						
Persons	775 a/	575 a/	594 b/	1,078 b/	980 b/	1,368 b/

a/ Where there was more than one child in a family in the specified age group it was counted as one. If preferences among individuals differed there was considered to be "no definite preference". This accounts for the high proportion of "no definite preference" for these two age groups.

b/ Only the age of the housewife and male head of the house were obtained. Consequently, these data do not pertain to other adults in the home.

Actually, such limited data as are available on expressed cheese preferences at earlier dates suggest that the proportion of the population which prefers cheddar to processed cheese or old cheddar to mild has not greatly changed in recent years. In 1935 the Economics Division made a study of cheese consumption.^{1/} In the course of this study housewives were asked how women and men in their homes would rank their preferences for various types of cheese. As this study was conducted in different cities, namely Quebec, Oshawa, and Calgary, and used a somewhat different classification of cheese, comparisons of its results with those of the current study with respect to preferences are suggestive but not conclusive.

^{1/} Boucher, G.P. and Hopper, W.C., An Economic Study of Cheese Consumption in Certain Urban and Rural Districts of Canada. Economics Division, Department of Agriculture, 1939.

A larger proportion of both women and men preferring cheddar to all other types was found in the 1951 study than in the 1935 study (Figure 4). The proportion preferring processed cheese to other types among those interviewed in 1935 was greater than that preferring either processed or cream cheeses in 1951. If it be assumed that medium cheddar was classed by those interviewed in the 1935 survey as mild, a slight decline in the proportion preferring old cheddar is indicated. The larger size of the cities involved in the 1951 survey together with inclusion of such domestic cheese as Oka in the special class may account for much of the increase in preference for this class as compared with the imported class of the 1935 survey.

Thus, the pattern of preferences among types of cheese has changed little since 1935. More processed cheese is bought now than formerly. Even those who prefer cheddar may use as much processed cheese as cheddar because of its convenience in certain uses and greater uniformity of flavour. In any event, increased sales of processed cheese have meant an expanded cheese market rather than the displacement of cheddar.

Similar differences appeared in the cheese preference of men and women in both the 1935 and 1951 surveys. A larger proportion of the men than of the women like cheddar -- especially old cheddar -- best among types of cheese. On the other hand, more women than men give first preference to processed cheese.

Opinion of Cheese.— Although there is a relation between age and type of cheese preferred, there does not appear to be any clear-cut relation between age and opinion of cheese with respect to its nutritive value, digestibility, or economy. Housewives under the age of 30 appear to be somewhat more likely to rate cheese average or lower for nutritive value than older women. The difference in proportions giving this relation is small and may arise from a somewhat larger proportion of the younger women being familiar with the complexity of making comparisons between the nutritive values of various foods.

Conclusions.— The fact that small families eat more cheese per person than large families indicates the importance of catering to the small family in selling cheese. On the other hand, there may be a need for directing more sales publicity toward the larger family to stimulate their consumption. Special consideration should be given to the low cheese consumption of children since the children of today are the adults of tomorrow. Effort directed towards increasing their consumption of cheese may have lasting effects.

While a highly satisfactory diet excluding cheese is possible, the discrepancy between Canadian cheese consumption and what nutritionists consider desirable suggests an advertising approach in marketing cheese. It might take many years to convince the Canadian public that they should eat the recommended quantities, but once people were convinced that cheese was a food of high nutritive value which should be eaten in considerable quantities a large market would be assured.

The fact that processed cheese has not replaced but rather supplemented cheddar is suggestive. It implies that as an increasing

FIGURE 4

A COMPARISON OF TYPES OF CHEESE PREFERRED

QUEBEC CITY - OSHAWA - CALGARY, 1935 TO OTTAWA - TORONTO - VANCOUVER, 1951

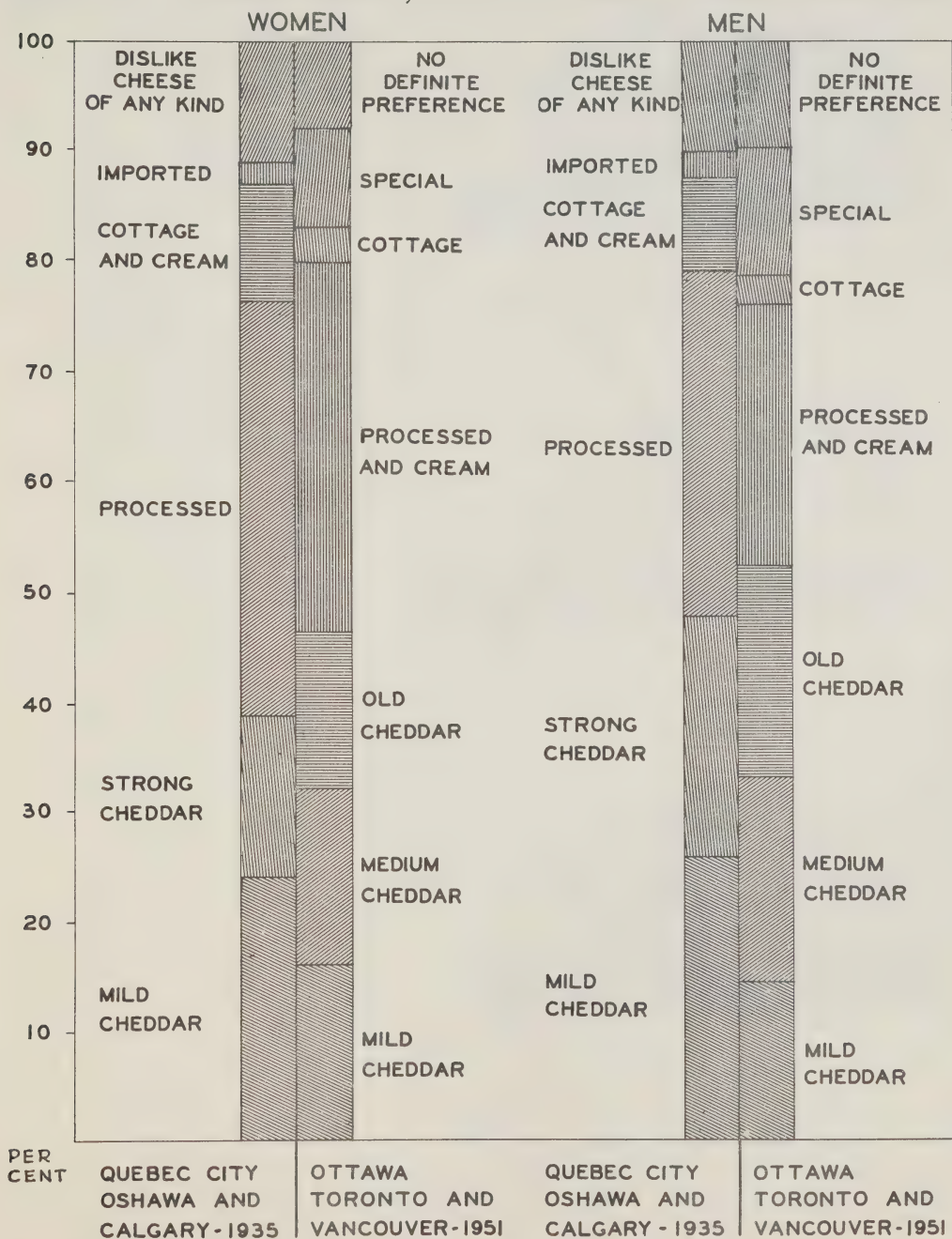
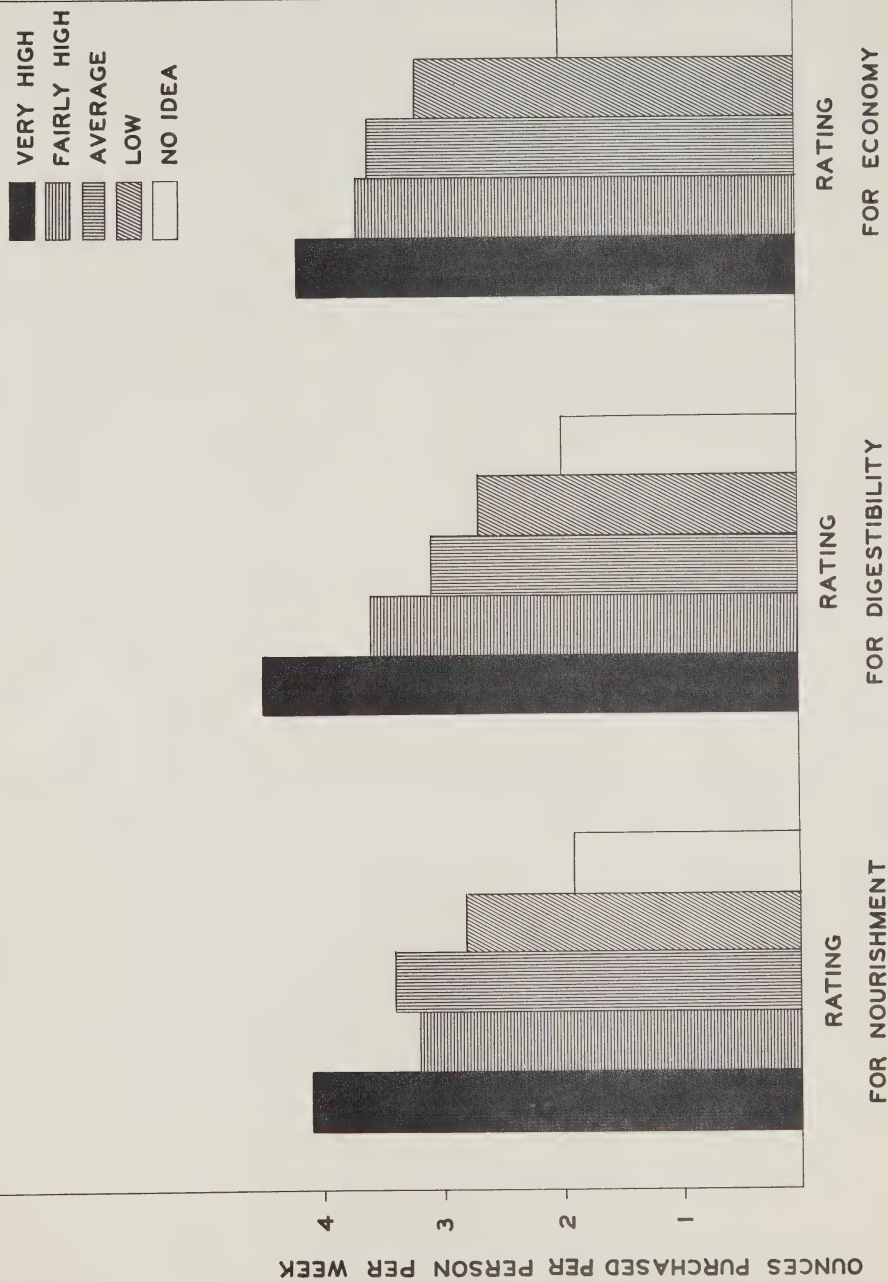


FIGURE 5

RELATION BETWEEN RATING OF CHEESE FOR NOURISHMENT -
DIGESTIBILITY - ECONOMY AND AMOUNT USED



variety of types of cheese is made available and selling competition becomes keener, sales of cheese will increase and not merely shift from one brand or type to another.

OPINION OF CHEESE

The importance of convincing the Canadian population of the food value of cheese has been noted above. As previously mentioned, the housewives were asked to rate cheese as compared with most other foods for nourishment, digestibility, and economy. As might be expected with these questions coming at the end of a 20 minute discussion of the use of cheese, the majority of the housewives rated cheese above average on all three scores (Table 15). However, this does not necessarily mean that the majority have a real appreciation of the merits of cheese as a food. Similar results probably would have been obtained for any of the staple foods in the Canadian diet. Exceptions on the economy score might have arisen with beef and eggs, as these foods were at record high prices at the time of this survey.

When the expressed opinions of cheese were related to purchases it was found that in relation to each of the three factors, nourishment, digestibility, and economy, the higher the rating the greater the amount of cheese purchased per person per week (Figure 5). This relation was somewhat closer for digestibility than for the other two factors.

It is noteworthy that those who refused to give any rating, i.e., said that they had no idea as to how cheese should be rated, used considerably less cheese than those who rated it low. Apparently, a lack of opinion about such qualities of cheese is even more adverse to cheese sales than an unfavourable opinion.

The implication of this is rather readily apparent. Make people cheese conscious and they will eat more of it. Development of a conviction that cheese is a highly nutritious, easily digested food which costs little for the food value obtained will increase sales most but it is not essential to spread this conviction to increase sales. So long as the idea of eating cheese is repeatedly impressed on the minds of housewives, sales will be stimulated. Sales may be stimulated at the expense of other equally desirable foods. Consequently, the development of such a conviction appears to be a task for the cheese industry rather than any public agency.

SUMMARY AND MARKETING SUGGESTIONS

The data assembled in the course of this study reveal the following broad characteristics of the market for cheese in Canada:

1. Sales of cheese vary sharply between cities both as to total sales and the relative sales of specific types. Sales per person in all cities except Three Rivers exceeded the Canadian average. This suggests that cheese consumption per person is much lower in small centres and rural areas than in large cities. (pp. 3-18).
2. Somewhat more cheese is eaten in winter than in summer. The main reason for this appears to be a feeling of requiring more food in cold weather. (pp. 21-23).
3. While total use of cheese increases with economic class, the use of cheddar cheese decreases. There is a tendency among the more prosperous groups to substitute higher priced fancier types of cheese for cheddar. (pp. 24-28).
4. There is some relation between the country of origin of Canadian families and their use of cheese. British families use the most cheddar. East European and Jewish and Syrian families eat three to four times as much cottage cheese as British or West European. (pp. 28-31).
5. There is a tendency for purchases of cheese per person to decline sharply as size of family increases. (pp. 34-35).
6. Children eat considerably less cheese than do adults. Most Canadians eat much less cheese than nutritionists suggest for a well-balanced diet. The difference between actual cheese consumption and the level which nutritionists suggest as desirable is generally greater in families including children than in all-adult families. (pp. 34-38).
7. Cheese preference patterns change with age. The tendency is for a larger proportion of old people to prefer cheddar, especially old cheddar, than of young people. Nevertheless, there are indications that the pattern of cheese preferences is not changing much with time. Processed cheese is supplementing rather than replacing cheddar. (pp. 38-41).
8. The higher opinion a person has of cheese the more of it he is likely to eat. However, the person who has no idea as to how to rate cheese as a food is likely to use less of it than the person who rates it low. (p. 41).

In the course of evaluation of data gathered in this study, the following suggestions have been developed as means of increasing sales of cheese:

1. Because an area already has a relatively high rate of cheese consumption is no reason to neglect it in efforts to expand the market. Indeed, such an area may show the quickest response to increased sales effort. On the other hand, a low level of sales in a given market may mean that it is uneffectively developed rather than that it lacks potentialities. (p. 18).
2. In marketing cheese it is important to have as wide a variety of types and flavours as practicable readily available in each centre. Certainly, all three degrees of maturity of cheddar, milk, medium and old, should be readily available to consumers in all areas. (pp. 18-24).
3. The many uses of cheese and its adaptability to all types of meals, as either main course or dessert, should be given considerable publicity. (p. 24).
4. It is desirable to stress the low cost of cheese relative to its food value in catering to the lower economic classes. These classes include the mass of the population and offer the largest potential market. (p. 28).
5. Special emphasis should be placed on development of the market for cheese in French-speaking sections of Canada. While French-speaking Canadians eat less cheese than English-speaking Canadians, the indicated rates of cheese consumption for Sudbury and for bilingual families in Ottawa suggest that there are possibilities of sharply increasing the quantity of cheese consumed by French-speaking Canadians. (p. 33)
6. Suggestions of nutritionists with respect to the amount of cheese which should be included in the diet should be given maximum publicity since they imply that most Canadians should eat far more cheese than they do. (p. 40).
7. Continuous publicity concerning cheese and its merits as a food is desirable since the more people think about cheese, the more of it they are likely to eat. (p. 41).

APPENDIX

Following is a list of firms which provided data on their sales of cheese in the months of May, August and November 1951 and February 1952 for purposes of this study. Most of these firms are wholesalers and jobbers but the list includes some importers and large-scale retailers. Firms supplying data concerning sales in each city are listed in alphabetical order.

Saint John, N.B.

Atlantic Wholesalers, Ltd.
Baird and Peters Ltd.
Barbour, G.E. Co., Ltd.
Burns & Co. Ltd.
Canada Packers, Ltd.
Clover Valley Foods Co., Ltd. (Toronto, Ont.)
Fenwick, T.S. Ltd.
Gorman, Thomas & Sons Ltd.
Kraft Foods, Ltd. (Moncton, N.B.)
Swift Canadian Co., Ltd.

Three Rivers, P.Q.

Canada Packers, Ltd. (Montreal, P.Q.)
Chevalier, J.A. & Fils, Ltee.
Chevalier, Maurice, Co., Ltee.
Clover Valley Food Co. Ltd. (Toronto, Ont.)
D'Aoust, J.M. (Montreal, P.Q.)
Dominion Stores, Ltd. (Montreal, P.Q.)
Godin, J.N., Ltee.
Kraft Foods, Ltd. (Montreal, P.Q.)
Les Produits Alimentaires de la Mauricie, Enrg.
Ouimet, J. Rene, Ltee. (Montreal, P.Q.)
Page, Louis Phillippe (Louiseville, P.Q.)
Rousseau, Saturin (St-Zepherin, P.Q.)
Smith, Herby (Notre Dame du Bon Conseil, Cte. Drummond, P.Q.)
Standard Brands, Ltd. (Montreal, P.Q.)
Swift Canadian Co., Ltd. (Montreal, P.Q.)
Savard, Paul Emile (Ste-Anne-de-la-Perade, Cte. Champlain, P.Q.)
The Great Atlantic & Pacific Tea Co., Ltd. (Toronto, Ont.)

Ottawa, Ont.

Boucher, A.
Burns & Co. Ltd.
Canada Packers, Ltd.
Couture, Tom & Co.
Clover Valley Food Co., Ltd. (Toronto, Ont.)
D'Aoust, P., Ltee.
Dominion Stores, Ltd.

Freedman, J. & Son, Ltd.
Fullers Food Sales (Toronto, Ont.)
Gamble-Robinson, Ltd.
Homey Farms, Ltd. (Stouffville, Ont.)
Kraft Foods, Ltd.
Loblaw Groceries Co. Ltd., (Toronto, Ont.)
Lucerne Food Products, Ltd.
Martin, W.J.
Milqueen Products, Ltd. (Montreal, P.Q.)
Monarch Creamery Products, Ltd. (Toronto, Ont.)
National Grocers Ltd.
Raymond, A.L.
Sanderson, S.J. (Oxford Station, Ont.)
Schneider Packing Co. (Kitchener, Ont.)
Standard Brands, Ltd. (Montreal, P.Q.)
Steinberg's Wholesale Groceries, Ltd. (Montreal, P.Q.)
Swift Canadian Co., Ltd.
The Pastene Co., Ltd. (Montreal, P.Q.)
The Great Atlantic & Pacific Tea Co., Ltd. (Toronto, Ont.)
Toronto Macaroni & Imported Foods, Ltd. (Toronto, Ont.)

Toronto, Ont.

Birds Hill Dairy
Brantford Produce Co. Ltd. (Brantford, Ont.)
Brodey, Ivor
Canada Packers, Ltd.
Clover Valley Food Co., Ltd. (Toronto, Ont.)
Dominion Stores, Ltd.
Danish American Importing Co.
Erin Creamery & Dairy Products
Fuller's Food Sales
Hickeson, E.W. & Co., Ltd.
Homey Farms, Ltd. (Stouffville, Ont.)
Kraft Foods, Ltd.
Loblaw Groceries Co., Ltd.
Lucas, R.T. & Co.
Lucerne Food Products, Ltd. (Hull, P.Q.)
Lumbers, James Co., Ltd.
MacFeeters Creamery
Marshall's Co., Ltd.
Meldrum & Co.
Monarch Creamery Products, Ltd.
Murphy, Joseph
National Grocers, Ltd.
Pasquale Bros., Ltd.
Peoples Produce Co.
Players Produce, Ltd.
Porter, Paul & Co.
Presswood Bros.
Puddy Bros., Ltd.
Redford, D.
Rodway Co., Ltd.
Schneider Packing Co., Ltd. (Kitchener, Ont.)
Standard Brands, Ltd.

Swift Canadian Co., Ltd.
The T. Eaton Co. Ltd.
The Great Atlantic & Pacific Tea Co., Ltd.
The Pastene Co., Ltd. (Montreal, P.Q.)
Thomson Groceries, Ltd.
Toronto Macaroni & Imported Foods, Ltd.
United Co-operatives of Ontario.
Western Creamery Co.
Whyte Packing Co., Ltd.
Wright, V.
Yeats, A.
ork Trading Co., Ltd.
Young Produce Co.

Sudbury, Ont.

Brantford Produce Co., Ltd. (Brantford, Ont.)
Canada Packers, Ltd.
Clover Valley Food Co., Ltd. (Toronto, Ont.)
Dominion Stores, Ltd. (Toronto, Ont.)
Fuller's Food Sales (Toronto, Ont.)
Gamble-Robinson, Ltd.
Homey Farms Ltd. (Stouffville, Ont.)
Kraft Foods, Ltd. (North Bay, Ont.)
Lapalme, J.A. & Sons, Ltd.
Loblaw Groceries Co., Ltd. (Toronto, Ont.)
Marshalls, Ltd. (Toronto, Ont.)
Monarch Creamery Products, Ltd. (Toronto, Ont.)
National Grocers, Ltd.
Northern Produce, Ltd.
Schneider Packing Co. Ltd. (Kitchener, Ont.)
Sudbury Wholesale
Swift Canadian Co., Ltd.
The Great Atlantic & Pacific Tea Co., Ltd. (Toronto, Ont.)
The Pastene Co., Ltd. (Montreal, P.Q.)
Toronto Macaroni & Imported Foods, Ltd. (Toronto, Ont.)

Saskatoon, Sask.

Burns & Co., Ltd.
Campbell, Wilson & Millar Ltd.
Canada Packers, Ltd.
Codville Co., Ltd.
Dairy and Poultry Co-operative Marketing Association Ltd.
Hunters Mfg. Co., Ltd. (Winnipeg, Man.)
Intercontinental Packers, Ltd.
Kraft Foods, Ltd.
Macdonalds Consolidated, Ltd.
Saskatchewan Federated Co-operatives, Ltd.
Shelly Bros. Ltd.
Standard Brands, Ltd.
Swift Canadian Co., Ltd.
Western Grocers Ltd.

Vancouver, B.C.

Adams, Roy D.
Ainslie, John Co. Ltd.,
B. & K. Economy Stores, Ltd.
Borden Co., Ltd. (Ottawa, Ont.)
Bosa, A.
Burns & Co., Ltd.
Canada Packers, Ltd.
Consolidated Grocers Co-operative Assn.
Duncan Produce, Ltd.
Edmondson, G.L., and Associates
Gainers, Ltd.
Henderson, James & Co.
Hunter's Mfg. Co. Ltd.,
Kelly Douglas & Co., Ltd.
Knowles & Macaulay, Ltd.
Koffman Food Importers
Kraft Foods, Ltd.
Livingston Produce Co. Ltd.
Louie, H.Y. Co., Ltd.
Lucerne Food Products, Ltd. (Hull, P.Q.)
Macdonalds Consolidated, Ltd.
Malkin, W.H. Co., Ltd.
National Importers Ltd.
Northern Alberta Dairy Pool, Ltd.
Overwaitea, Ltd.
Slade & Stewart, Ltd.
Swift Canadian Co., Ltd.
The T. Eaton Co., Ltd.
Toronto Macaroni & Imported Foods, Ltd. (Toronto, Ont.)
Tosi, P. & Co.
Trans-Canada Import & Export Co., Ltd.
Vancouver Supply Co., Ltd.
Watkins Low, Ltd.
Westgate Trading Co.
Westminster Supply Co., Ltd.
Woodward Stores, Ltd.

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